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THE SLUMP IN THE COTTON INDUSTRY, 1952

THE DEPRESSION AND ITS SOURCES

Few industries have been more the subject of study and enquiry than the Lancashire cotton industry : few are more conscious of themselves or have more elaborate collective agencies. No examination of the industry's recent history, then, can strike any strong note of originality. The purpose of this essay is rather to survey : to examine the suggested causes of the depression into which the U.K.'s cotton trade was so violently plunged in 1952, to select certain conditions the writers think of special significance for the future of the industry, and to draw attention to points they consider insufficiently regarded.

In retrospect, the British cotton depression appears as part of a general and international movement, affecting several consumers' goods industries in some degree, and textiles in particular. It was heralded by a contraction in the clothing industry, where unemployment had been increasing since the Spring of 1951, and was substantial by the autumn. In wool, and in the textile finishing trade, unemployment also mounted through the autumn months. But throughout 1951, output of cotton goods continued to expand. The reported profits of cotton firms[1] exceeded, for the fourth year in succession, those of any year since the ' Boom ' of 1919–1921. Employment in spinning continued to increase up to November 1951, and in weaving remained, at that date, at about the level it had reached in the previous summer. There was, true, an increase in unemployment among cotton operatives in the autumn months of 1951. This was so small, however, as to be insignificant; the proportion of registered unemployed remaining at less than half per cent. But in December, unemployment doubled sharply, and from January 1952, mounted fast until, by the following summer, the industry was almost universally involved.

By the end of May, 1952, the number of cotton operatives on the payrolls of the industry had fallen 15 per cent. from the November 1951 peak, and a further 24 per cent. were registered as unemployed while ' temporarily stopped '. And the official statistics do not, we think, by any means tell the whole story.[2] It is indeed, the depth of unemployment and partial employ-

[1] Source : *Financial Times*, monthly analysis of trend of Industrial Profits, and Frederick W. Tattersall's *Cotton Trade Review*.

[2] One of the writers has separately estimated that by the end of May 1952, nearly 200,000 spinning and weaving operatives—over 60 per cent of previous peak strength—had taken other jobs, were wholly unemployed, or on short-time. There was, in addition, some ' under-employment ' (working with a reduced number of looms at a reduced wage) the effect of which cannot be estimated.

ment in cotton—rendered stark, in certain towns, by their almost unrelieved impact—that makes the industry's experience of 1952 a slump rather than a recession. As measured by the decline in demand,[1] its suffering was not notably worse than that of several other trades.

What most obviously set the cotton slump apart was the sharpness of its onset—which took, or so it seems from their previous statements, many leaders of the industry itself by surprise—and its culminating intensity. The recession's delay in striking cotton (and the associated rayon industry) is no doubt partly accounted by some ' backlog ' of orders, especially for exports, from the preceding boom period. But in the main we think both the abruptness and special force of its impact to be explained by the structure of the industry, which closely conditioned the trade's response to the market changes of 1951. The effect of these was first cushioned and retarded—only to strike with a greater final violence on that score—by the several stages of cotton's ' horizontal ' organisation, and next magnified in its progress through the industry by the same system.[2] This process is worth a study in itself: what we are here concerned with is the situation that initiated it.

The contraction in the cotton trade sprang from the coincidence of recession in both its home and export markets. It is here necessary to estimate the relative importance of these. It is well known that the Lancashire industry has become, and particularly in the last generation, no longer primarily an exporting trade. Just before the First World War, four-fifths of its output was exported: the Director of the Cotton Board's Economics Department, Dr. R. Robson, has recently calculated[3] the ratio of exports to United Kingdom total production of cotton manufactures between 1949 and 1951 at 35 per cent., or 28 per cent., if the grey cloth imported in large quantities for processing and re-export in those years be excluded.[4] We

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[1] We later estimate the contraction in demand for cotton goods in the slump at approximately 20 per cent. An estimate on a similar basis for woollen and worsted shows much the same result. The fall in the home demand alone for boots and shoes, and for clothing, was 21 per cent over the same period (p. 109 n. 2) Unemployment, however, was notably more severe in cotton than in these other trades.

[2] The estimate already referred to (p. 105 n. 2) gives the total loss of work in each main section of the cotton industry at the end of May 1952, and expressed as a percentage of the 1951 peak employment in each case, as:

Textile finishing	16.8%
Cotton weaving	26.4%
Cotton spinning and doubling	48.5%

Rather more than a normal ' acceleration ' effect, surely.

[3] In a paper ' The Development of the Cotton Industry and Trade ' presented to a joint meeting of the Royal and Manchester Statistical Societies, September 1952.

[4] The attempt to estimate the dependence of the industry on exports is sufficiently complicated by the different measurements and periods to which the export and production statistics for cotton goods relate. But the question of re-export bedevils it. Dr. Robson's calculation presumably assumes (as does our own, p. 107 n. 1) that all the grey cloth imported for that purpose contributed to exports. There is a suggestion that a ' bottle-neck ' in the finishing trades in fact delayed the processing either of imported grey cloth or of Lancashire cloth produced for export (*The Manchster Guardian*, January 4th, 1952, Letter signed ' Manufacturer ') in which case the proportion of export employmet would have been higher. There is a certain mystery about the whole ' grey cloth ' question. In 1951 290m. sq. yards of grey cloth were imported, nominally, for processing and re-export. In the same year 225M. sq. yards of grey cloth, however, were directly exported, presumably of home manufacture. The quantities involved (over a quarter of total exports) seem too large for this oddity to be explained by a difference in the qualities of the grey cloth imported and that exported.

ourselves estimate that approximately one-third of all cotton operatives were employed in the supply of export markets in 1951.[1]

It could, indeed, he said that only the expansion of the home market rescued the cotton industry from final bankruptcy in the 'Thirties.[2] It gave the trade some relief from its disasters in the international markets. But in 1951 and 1952 the home market ' paid off '. The fall in the total demand for the industry's products over these years may be variously estimated, according to the indices and periods one selects for comparison. We calculate the contraction in the combined rate of demand—from home consumers and overseas buyers of cotton textiles—between the ' boom ' and ' slump ' period as almost exactly one-fifth.[3] Of this decline, half was due to the fall in the domestic market and half to the collapse of exports.

The home market was thus quite as significant as the export trade in the 1952 depression. It could, moreover, be said to have started the slump. The first public portent of oncoming recession was (as our Table (A) demonstrates) the partial failure, in 1951, of the normal spring boom in retail sales of clothing. Some signs of what was to come had certainly appeared in exports also :[4] but as a whole these remained steady until January 1952, and suffered no violent fall until April of that year. It is the shrinkage in the home market, then, that we must first examine.

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[1] We estimate the extent to which cotton labour was employed for export production in 1951 as 33 per cent in spinning, 28 per cent in weaving, and 45 per cent in that part of the textile finishing industry engaged in the processing of cotton goods—an overall proportion of 33 per cent of all cotton operatives. (Calculation on Cotton Board statistics of employment, production, exports, and of grey cloth imported for finishing and re-export).

[2] We derive from Dr. Robson's tables (p. 106 n. 3) the two following series, to illustrate the trend of the cotton trade in the more recent past.

Exports as per cent of Total U.K. Production of Cotton Goods (Cotton Content)

1882–84	85
1910–13	81
1926–28	74
1936–38	46
1949–51	35

Destination of U.K. Cotton Goods Output (m.lbs)

	Total annual Production	*To Export*	*To Home Market*
1910–13	2,100	1,700	400
1926–28	1,470	1,090	380
1936–38	1,320	610	710

The latter table's 'kink' in the 'Twenties we found surprising—but a check on piece-goods statistics gives much the same result.

[3] Calculated, for home demand, on an approximate distribution of cotton output between apparal (36 per cent), household (29 per cent) and industrial (35 per cent) uses derived from A. C. Wild's ' Uses of Cotton in the U.K. ' (Manchester Statistical Society, November 1950); and for want of better indices, on sales of clothing and household goods at constant prices (Monthly Digest of Statistics) plus an approximate figure for industrial uses based on tyre and certain other fabrics. Rate of demand in slump period, July 1951–to March 1952, contrasted with similar boom period 1950–51 : fall 15 per cent. For exports rate for six months April–September 1952 contrasted with 1951 average : fall 31 per cent. Export/total-output relation as in (p. 107 n. 1) per cent for 1950–51. In the later discussion of the home recession we are bound to take clothing sales in total as the main index : no separate statistics of made-up sales of the different apparel fabrics are available, and the series for household goods is even less discriminating. But household textiles *in general* appear to have followed a similar pattern to clothing, and industrial use did not decline much in 1951.

[4] The unpublished statistics of order-books, in the possession of the Cotton Board, would no doubt reveal these.

The Recession in the Home Market

Several explanations of 1951's domestic textile recession are current: 'stockpiling' by traders and panic buying by consumers after the Korean War's outbreak in mid-1950, in anticipation of a shortage that did not come: a 'consumers' strike' against high prices: the results of deflationary governmental policy: the effects of changes in real income and its distribution.[1]

Detailed analysis is complicated by two things: the movement of prices, and the seasonal cycles of consumers' expenditure in general, and of clothing purchases in particular. Clothing prices continued to rise (and rise fast) in 1951, and on clothing sales by value there was no great evidence of recession that year. But the general level of retail prices was also going up quickly; and it is the relation between the prices of different goods, and between those and people's incomes, which must be considered. To abstract the problem, first, from the question of price inter-relations, we have calculated, in real terms, the total purchases of all kinds of consumers' goods each quarter from 1949 to mid-1952, and within that total, people's purchases of clothing. The result is set out in Table (A). This shows, that while the seasonal movement of consumer's expenditure held through to 1952 (with a certain levelling-off in 1951), that for clothing was sharply disturbed from mid-1950 onwards. Next, in the graph (B) we have eliminated the seasonal movement to show the underlying trends of consumption, which rises—and especially for clothing—to a peak at the turn of 1950–51.

The theory which perhaps had the widest acceptance in the cotton industry was 'the consumers' strike'. To begin, then, by examining this. In 1951, the trend of total 'real' expenditure followed closely that in average real income per head,[2] which increased by nearly 2 per cent in 1950 and fell by about the same amount in 1951. The decline in consumption was clearly not due—in Britain at least—to the rise in prices alone, but to the fact that prices rose faster than incomes. There is no evidence in the way of increased net savings, such as occurred in the U.S.A. in that year, to suggest that people were put off from spending by a prudent desire to keep their money till they could get better value for it. The general situation was less a 'consumers' strike' than a 'consumers' lockout.'

Clothing prices, however, rose 16 per cent, while the general index of retail prices rose only 11 per cent. Were consumers led to discriminate against clothing purchases by this disparity ? In effect, it merely continued the post-war trend; since 1947 the prices of clothing had been rising about one-third faster than those of goods in general, but this had not apparently prevented sales of clothing expanding no less fast—in 1950, faster—than those of other goods, and there was no notable upward shift in the curve of clothing sales after March 1949 to suggest that consumers had been much restrained by rationing before that date. Moreover, the recession of 1951 seems to have been equally marked for apparel goods of leather, wool, rayon and cotton although their individual price increases must have differed considerably.[1]

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[1] Mr. Brothwell, in an article on the 1951 depression in the woollen industry (Yorkshire Bulletin of Economic and Social Research, September, 1952) uses a statistical technique to conclude that if the relation between consumers' purchases, their average real income, and the relative prices of goods was the same in 1949–51 as before the War, only one-third of that recession can be explained by changes in average real income and relative prices, and suggests a 'buying spree' and subsequent 'strike' by consumers to be more important. Mr. A. Shonfield of *The Financial Times*, in an address to the 1952 Cotton Board Conference on 'The Recession in Textiles' made an international comparison of consumers' behaviour and put more emphasis on the trends of real income and the character of demand for clothing. With respect, we doubt Mr. Brothwell's assumption that the essential pattern of expenditure was unchanged, and think Mr. Shonfield's suggestions come nearer the heart of the matter.

[2] See Mr. Brothwell's tables, op. cit.

One can refine the ' consumers' strike ' theory somewhat, and argue that their behaviour was not so much related to *actual* price movements, as to changes they *expected* : that consumers having ' speculated ' in 1950–51 on future price increases, were also speculating in 1951–2 on still further price reductions than actually occurred. But such detailed study of the comparative movements of prices and sales as the available indices allow does not permit us to fit consumer's behaviour over these years into any particular theoretical model. At the least, consumers' ' expectations ' must have been very wide of their daily experience of price movements. Despite similar price changes, and in contrast[2] to clothing, footwear sales did not rise much in the boom, but fell heavily in the slump : while wool blankets (to go by production figures) seem to have sold steadily right into 1952. The ' consumers' strike ' theory is not disproved by these things : but it remains, we think, itself a tempting speculation in social psychology.

Two things are certain about these years. The first is that a war started. There is no evidence of any great speculative ' stockpiling ' by traders in clothing after mid-1950. Rather the reverse : what seems to have happened is that both retailers and wholesalers assumed that the abolition of rationing in early 1949 would lead to a general increase in demand. The disappointment of that hope left them with a redundancy of stocks, but those in wholesalers' hands were actually run down in the 1950 boom, while even in mid-

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[1] No separate indices of retail prices are available, but between the outbreak of the Korean War and Spring 1951, the prices of raw wool increased by nearly 200 per cent, of raw cotton by 80 per cent, of rayon fibre by 46 per cent and of hides by 90 per cent. (Source : B.O.T. Index of Wholesale Prices.)

[2] For what they are worth we give the following calculations :

(*a*) *Prices* (*Wholesale*) :

	Made-up Clothing	*Hosiery and Knitwear*	*Footwear*	*Carpets*
June 1950	100	100	100	100
June 1951	118	139	127	143
June 1952	109	103	114	110

(*b*) *Sales by volume* : ' Boom period ' 1950–51 contrasted with 1949–50 and 1951–52 (nine months from June 1st in each case).

	Clothing	*Footwear*	*Household goods*
1949–50	100	100	100
1950–51	110	102	113
1951–52	87	81	92

(*a*) from B.O.T. Wholesale Price Indices.

(*b*) from ' Monthly Digest of Statistics ', Table of Final Consumption at Constant Prices.

1952 the retailers' stock-pile was apparently not remarkable.[1] Whether this was due to the acquired caution and intelligent foresight of traders, or to restriction in the supply of cloth, we cannot say. But the popular reaction to the Korean affair seems to have been rather different. Some large part of the increased sales of clothing in late 1950 and early 1951 may fairly be regarded as an anticipation by consumers of future purchases—of their future needs of things they expected to become scarce. It seems very possible that their recent experience of rationing directed their choice.

If one assumes (for simplicity's sake) that expenditure on clothing tends to be a constant proportion of real income, one can make quite a neat table by comparing first the three ' boom ' quarters mid-1950 to Spring 1951, and second the parallel ' slump ' quarters of 1951–52, with the similar period of 1949–50 taken—for want of better—as representing 'normalcy.' As follows:

Compared with ' Normal ' period of 1949–50 (9 months from July 1st in each case)	*Change in rate of Total Purchases*	*Change in rate of Clothing Purchases*	*Difference 'Abnormal Variation in demand for clothing '*
(*a*) ' Boom ' period : 1950–51	+4.0%	+9.67%	+5.67%
(*b*) ' Slump ' period : 1951–52	—0.67%	—12.67%	—12.0%

The ' abnormal ' increase in real clothing purchases in the months after the Korean outbreak was thus certainly sharp. But it was not enough to explain the fall after Spring 1951 because this was twice as great. Moreover, and although the normal seasonal movement was resumed in 1952, volume sales stayed at a low level throughout that year.

THE INCOME–EXPENDITURE PATTERN

The other certainty of this period is that there were shifts and changes in the real income of the people. The ' stockpiling ' account of the textile recession does not explain what financed the extra demand for clothing in 1950-51 and where that demand went to in 1951–52. To some extent the boom purchases were paid for by cutting other expenditure. There was a ' real ' decline in expenditure on both travel and ' miscellaneous goods and

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[1] We have no indices of quantity stocks of cotton goods at different stages of distribution, and in default have constructed the following by deflating the ' Monthly Digest of Statistics' value indices for (*a*) wholesale textile houses' stocks of piece-goods and (*b*) large retailers' stocks of clothing and footwear, by the B.O.T. indices for wholesale prices of (i) cotton cloth and (ii) made-up clothing respectively.

	Volume Stocks of Wholesale Textile Houses	*Volume Stocks of Large Retailers*
July 1949	100	100
July 1950	125	116
July 1951	51	109
July 1952	105	111

Almost certainly defective, but the best we can do. Their broad evidence, however, is not disputed by people in the trade whom we have approached.

[2] Calculated from Table (A). This can, of course, be done in several ways but they do not show very different results from the illustration set out.

services ' in 1950, although these items rose again in 1951.[1] This suggests that some people diverted holiday savings to ' stocking up ' in the former year. But the main source of the ' boom ' demand was extra purchasing power. Here we think the distinctive movement of manual workers' real wages from 1949 to 1951, provides a clue : and an estimate of this we have plotted in both table (A) and the graph (B).

The purchasing power of the manual workers' wage had, from 1938 until 1949 been rising at a fairly steady annual 2 per cent. It was first stabilized, throughout the latter year until well into 1950. Then, and after the collapse of wage restraint, ' real ' wages rose sharply until Spring of 1951, when an equally sharp decline set in, as prices overhauled pay increases. This movement [set out in graph (B)] corresponds in its timing and direction with the trend of changes in clothing purchases—which seem to reflect those in real wages in an amplified way.

In each phase of the wage-price movement, moreover, some redistribution of relative income apparently occurred. Thus in the 1949–50 period of ' normalcy ', although average real wages were frozen, some real increase occurred in other incomes. It is certain that some manual workers got better off, and others worse. The redistribution was broadly one in favour of workers whose wages were more or less directly tied to production and away from those not so fortunately placed—a distinction which, again broadly, corresponds to the better-paid and worse-paid respectively. This transfer was accompanied by a slight tendency for clothing purchases to decline, although total purchases were creeping up.

After mid-1950, wages were rising faster than salaries, and probably than other incomes, and at the same time ' differentials ' amongst manual workers probably narrowed somewhat.[2] There was thus some redistribution of income, and particularly in favour of the lower-paid : and over this period [see Table (A)] the proportion of total real expenditure going to clothing was at its highest. And at the onset of the ' slump ' in early 1951, real wages certainly fell more sharply than total real expenditure, and their decline, therefore, was presumably not matched by a similar one in other incomes—or least at that stage. This change was accompanied by a sharp decline in the share of clothing in total purchases.

These things suggest that a very considerable proportion of the people, including the better-off working class, is now at the point at which increases in their purchasing power do not lead to proportionate increases in their expenditure on clothing. So that if their improvement comes at the expense of the lower-paid, the decline in the latter's buying of clothes (itself likely to be more than proportionate, since for people near the margin of subsistence new clothes are certainly a marginal item) will not be fully offset by the increase in purchases by the better-off. At the United Kingdom's present level of average real income, the more equal its distribution, the greater the proportion spent on clothing is likely to be, and vice-versa. On the other hand, an all-round increase in real incomes would not be fully reflected in clothing purchases. A combination of these two effects has, we think, operated since clothes-rationing ended in early 1949.

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[1] This movement is set out in the table of Final Consumption, revalued at average 1948 prices, ' Monthly Digest of Statistics '.

[2] This would be a consequence of the form wage increases usually take. See H. A. Turner ' Trade Unions, Differentials, and the Levelling of Wages ', *Manchester School*, Sept. 1952. Non-manual workers and some skilled men probably got worse off in this ' boom period.'

This is a partial explanation of the boom-slump movement in clothing sales in 1950–51. But it does not explain the *extent* of the slump, because at the end of the wage-price round workers as a whole were roughly back where they started in 1949. Why did sales not then return to their former level ? But here another aspect of the income movement fits in. Clothes were not the only goods the sales of which increased in 1950. Consumption of both drink and tobacco also rose.[1] But sales of household goods increased particularly sharply, and if the parallel rise in domestic consumption of fuel and light is any guide, a great deal of the boom was in household and electrical appliances. This is confirmed by delivery figures : there was, apparently, a mild boom in vacuum cleaners, domestic washing machines and even refrigerators—as well as cheaper electrical gadgets of all kinds (irons, kettles, etc.)—over 1950 and the early part of 1951. Most striking was the great issue of TV licenses : nearly half a million between mid-1950 and end-1951.[2]

It seems then, that the increase in popular purchasing power in 1950–51 —and particularly in that of manual workers—was accompanied not merely by an increase of consumption of the established luxuries of tobacco and the like, but by the inclusion of several new—and relatively expensive—conveniences in the conventional standards of many working families. But when real wages fell back again, the demand for these things did not quickly diminish.[3] Tobacco and drink consumption increased further in 1951 and kept steady over 1952, as did the delivery of washing machines until quite late in the latter year. TV licenses indeed, increased by a further 650,000 between mid-1951 and mid-1952.

One effect of the 1950–51 boom, and of the parallel availability of a new range of popular gadgets, seems thus to have been so to establish these things in the normal pattern of people's expenditure that many were prepared to cut on more traditional items to get or (since a great proportion of the TV sets and domestic appliances was no doubt bought on hire-purchase) to maintain them. Clothing and domestic textiles bore the main impact of this change in the general pattern of expenditure.

This is not to say that no further increase in clothing consumption per head can take place; the average in the U.S.A. and Canada seems nearly 50 per cent greater than that in the United Kingdom.[4] But it is worth noting that recent events affected the nature as well as size of the demand for clothing. In the boom period the sales of independent retailers rose less than those of chain and department stores and of co-operatives : in the slump they fell off much more : while the gradual recovery after Spring of 1952 seems to have been enjoyed almost exclusively by the mass retailers.[1] In the cotton trade itself the proportion of domestic deliveries of cotton cloth made up by ' Utility ' specifications,[2] which had fallen from 70 per cent in 1948 to less than 60 per cent over the ' boom ' months was back at 72 per cent by late 1951; while the recovery in rayon was already marked by late 1952, and synthetic fibres apparently in short supply. The transfer of the demand for clothing to mass-produced garments of standard qualities and to cheaper artificial fibres had been accelerated. People looked for clothes they could afford while maintaining the newer items in their living standards, and the synthetics which have qualities (both of use and prestige) different to the traditional fibres continued to flourish.[3]

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[1] Reference as in (p. 111 n. 1). Beer fell slightly but wines and spirits increased sharply. Effect of more expensive tastes, or of income redistribution ?

[2] ' Monthly Digest of Statistics ', various tables, for all these things.

[3] ' Monthly Digest,' again.

[4] See F.A.O. BULLETIN 21.

In sum then, and although we do not exclude a ' consumers' strike ', we think the post-war recession in the cotton industry's home markets can be sufficiently explained by the combined effects of consumers' stockpiling after mid-1950, of the changes in the movement and distribution of real income between 1949 and 1951, and of the concurrent changes in the pattern of popular expenditure. But this last, we think, may well have undergone a transformation of permanent significance to the textile trades.

THE EXPORT DEPRESSION

So much then, for the domestic causes of the slump. Although only half the decline in the demand for U.K. cotton goods was directly attributable to international depression, the fall in exports[4] between 1951 and 1952 was nevertheless about twice as steep as the preceding home recession. The story of the 1952 slump in export markets contains, however, nothing that seems to us distinguish it in any essential way from its predecessors of the 'Twenties and 'Thirties. It can therefore be more shortly told.

First, the economic situation of several countries which have been considerable importers of British cottons contained, in 1952, features rather similar to those already analysed in the home market itself : while ' deflationary ' governmental policies—induced in part by the demands of military expenditure, but especially by balance of payments difficulties—reacted upon textile imports when they were not accompanied by specific restrictions upon the latter. For hard-pressed economies, as for hard-pressed individuals, textiles are a marginal purchase. In a sense, the special depression in the cotton trade was a reflex from the subsidence of a general wave of prosperity. Thus the greatest single blow to Lancashire's exports, the deliberate closure in March, 1952, of the Australian market—which had the previous year taken nearly a fifth of the U.K.'s exported piece-goods—was largely consequential upon the preceding recession in wool sales and prices. As in the past, depression in the Lancashire cotton industry was associated with hard times for primary producers.

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[1] ' Monthly Digest ', Tables of Value Sales by Large and Independent Retailers. It is not necessary to translate these into ' real ' terms to see the difference. Between 1950 and 1951, for instance, small retailers' value sales of clothing fell very slightly : those of large retailers increased by 10 per cent. This is not *part* of the movement from small to large retailers : clothing seems rather to be the key to that movement, since on other items (except chemists' goods) the movement was non-existent or not very pronounced.

[2] Source : Cotton Board.

[3] It is noteworthy that man-made fibres, and especially synthetics, form a higher proportion of apparel consumption in the U.S.A. than in any other country, despite the plenty there of raw cotton. See, for instance, F.A.O. BULLETIN 21, again.

[4] See p. 107 n. 3.

The analogy may, however, be pursued in greater detail. The historical trend for one-time importers of cotton manufactures—and particularly growers of raw cotton—first to supply their own domestic needs and next to become themselves exporters is too well-discussed to need elaboration here.[1] But what should be noted is the impact of the Second World War. Its major effect was to accelerate that movement. Outside the area of battle and revolution, there was a great increase in the manufacture of cotton goods. The U.S.A., not a major exporter before the War, became a principal supplier of cotton cloths in the period of post-war scarcity and distress, and there was a small but significant new flow of exports from South America and the Near East. At the same time, the international market was further narrowed: in some small measure, by the decline of trade between the Soviet area and the non-communist world: more, by continued conflict in the Far East: and, especially, by the revolution in the Indian peninsular, from which India herself has recently emerged as a major exporter.[2]

But the War's aftermath also concealed its consequences. In the presence of an accumulated scarcity, of a world shortage of dollars, and the temporary prostration of its greatest pre-war competitor, the U.K.'s industry was unable to supply all the demands upon it. It seems probable, however, that the era of relative scarcity had effectively passed by mid-1949. In 1948, world production of cotton and rayon piece-goods had reached the annual total of 1936–8 (rayon replacing cotton to some degree), although international trade in these cloths was still only 62 per cent of the pre-war average.[3] By 1949,

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[1] That process may be illustrated in several ways, and perhaps most succinctly from the recent analysis by Dr. Robson, already referred to, from which we derive the following:

	World Production of Cotton Goods M.lbs.	*World Trade in Cotton Goods*		*U.K.'s share in world trade*
		% of prodn.	*M.lbs.*	*%*
1882–84	4,000	38	1,500	82
1910–13	10,500	32	2,970	58
1926–28	12,200	25	2,860	39
1936–38	14,000	17	2,220	28
1949–51	14,100	13	1,950	18

[2] All these things are neatly compressed into Table 4 of Dr. Robson's paper, which we understand is shortly to receive a wider publication.

[3] The following from 'International Cotton Bulletin', Jan.–Feb. 1952.

		1936–38	*1948*	*1950*
World Production of Piece-Goods (M. sq. yds.)	Cotton	35,500	34,000	37,700
	Rayon	5,300	6,700	9,000
World Trade in Piece Goods (M. sq. yds.)	Cotton	6,450	4,050	5,470
	Rayon	890	500	930

world per capita consumption of apparel fibres (of which cotton supplied nearly 70 per cent) had almost certainly regained the 1938 level, and by 1950 surpassed that figure.[1] In Russia and Asia only was 1949 consumption of textiles per head below that of 1938, and these were areas withheld from world trade by political circumstances. In the territories in which consumption had increased, however—the Americas and Antipodes notably—the additional demand for textiles had been met (in the case of the U.S.A. and of South America, more than met) by an expansion in domestic manufacture.[2]

It was into this situation that the revived Japanese export trade, and particularly, the immense expansion in Indian exports, were thrust, while the U.S.A. maintained a net export of piece-goods very much above its pre-war level.[3] That these outputs of cotton manufactures, as well as those of the European industries, were absorbed in 1950 can only be accounted for by the 'Korean' boom. From 1948 to 1950 world production of piece-goods increased by 15 per cent: but international trade in cotton cloth expanded by 40 per cent, and continued to rise fast in early 1951. The evidence of speculative trading in 1950–51, and that on a large scale, is thus much stronger in the international than the domestic field. The reality its passing has disclosed is only the more brutal on that account: a world in which, as compared with the pre-war era, the international market for cotton manufactures is further restricted, but in which also competition is more intense. And in which, moreover, there is no clear reason why these trends should not continue to develop.

There is then, a certain similarity between the movements at home and abroad in the general markets for the products of the Lancashire industry. In both cases, the turning-point of the wave of post-war prosperity would probably have been reached over 1949 and 1950: at home the flattened

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[1] F.A.O. BULLETIN (21) permits the following comparison:

Consumption of Main Apparel Fibres (Cotton, Rayon, Wool) per head of population, 1938–1950 (in Kilograms)

	1938	*1948–50 average*	*1950*
United Kingdom	11.9	11.4	12.5
Europe as a whole	6.1	6.5	7.1
U.S.S.R.	4.1	2.8	3.1
North America	11.6	16.9	17.5
Central and South America	3.3	3.7	3.8
Asia	2.2	1.6	1.5
Africa	1.3	1.5	1.6
Oceania	6.6	8.1	7.7
World Average	3.7	3.7	3.8

[2] See Dr. Robson's table (4) again.

[3] Dr. Robson's table does not fully illustrate the post-war trends in exporting. We therefore extract the following figures of 'Big Four' exports from the 'Internation Cotton Bulletin' (op. cit).

		1936–8	*1948*	*1950*
Exports of Cotton Piece-Goods (M. sq. yds.)	U.K. ...	1,740	760	820
	U.S.A. ...	250	940	560
	Japan ...	2,660	450	1,090
	India ...	200	300	1,110

trend of average real income, and abroad, the revival of competition, would thereafter have brought some decline. What postponed that event—but only to make its final shock the more violent—was the general boom of mid-1950.[1]

THE PRICE QUESTION

The disruptive effect of the ' Korean ' boom on international markets for cotton goods was greatly aggravated by the coincidence of that event with a poor harvest of raw cotton in the United States, and early prophecies of a similar failure in the Egyptian crop. The international buying of textiles is a professional affair, and it is not there possible to draw any distinction between speculation on probable price movements and ' stockpiling '—such as we have made for the home consumer. But it *is* necessary to separate two aspects of the movement of raw cotton prices : their instability, and their level relative to other costs and especially to those of cotton processing. Sharp *fluctuation* in the price of raw cotton is bound to be reflected in further speculation in the market for finished textiles. In the trade itself, however, the high *level* of raw cotton prices in 1950–51 is one of the major circumstances to which Lancashire's subsequent depression is attributed.[2]

A high level of raw cotton prices is not, however, without its compensations for British exporters. It implies a high level of purchasing power in the growing areas, some of which, like Pakistan, South America, and the Near East, are still considerable importers of manufactured cotton. Moreover, the main advantage of Lancashire's competitors lies in their lower processing costs:[3] a rise in raw cotton prices involves an absolute increase in cost for all producers : its effect, therefore, is to reduce the relative advantage of lower manufacturing[4] charges. There was thus a general narrowing of relative differences in the export prices of the major exporters of cotton cloth between 1950 and 1951, which seems to be explained mainly by the increase of some 40 per cent in raw cotton prices between those years.[5]

In the long run, of course, the prosperity which a high raw cotton price brings to the growing areas and its accompanying reduction of relative advantages in manufacturing costs also stimulate the growth of native industry. A high post-war level of cotton prices also seems itself an inevitable reflection of the fillip the war and its consequences gave to the dispersal of the industry : it remains easier, and more consistent with policy in many countries, to build mills than establish plantations. But in any event, dear cotton cannot be blamed for the special crisis of the British industry in 1952.

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[1] This point has, of course, already been made by the Chairman of the Cotton Board: 'In the summer of 1950 a more gradual changeover to a buyers' market had appeared to be just around the corner. The Korean war altered all this and injected a sudden and abnormal demand into the pattern of trade. Had it not been for this, an adjustment in the autumn of 1950 would have been less severe.' (Sir Raymond Streat to the Overall Manufacturers' Association, March 26th, 1952).

[2] See, for instance, the speech of the Cotton Board's Chairman (op. cit.)

[3] It is true that United States manufacturers pay less for many grades of raw cotton than those of the U.K., and that the Japanese were similarly favoured during the critical years. But how much difference this advantage makes to cloth prices seems a disputed question. The U.N. Economic Commission for Europe, in commenting (Economic Survey of Europe in 1951) on the result of its comparison of *average* grey cloth export prices (see pp. 118–9 n. 1) attached some importance to it. In an examination of relative prices and margins for *comparable* cloths in 1951, however, Mr. D. C. Shaw concluded that the relative cheapness of United States cloths was mainly due to their lower processing margins. ('Prices and Margins in the Cotton Industry ', Transactions, Manchester Statistical Society, 1951–52). Certainly, the effect on price relations of the smaller increase in raw cotton costs to U.S. manufacturers in 1951 would have been somewhat offset by their *other* costs forming a smaller proportion of the total.

[4] Using 'manufacturing ' in its general sense, not in its specialised Lancashire meaning of weaving.

[5] See the table from the U.N. Economic Survey of Europe in 1951 reproduced on p. 118 n. 1.

It is to be noted, first, that the United Kingdom did not share in the rapid expansion of international trade in cotton goods after 1949. Up to that year, its export expansion was still maintaining its share of world markets : the volume of cotton cloth exported by the United Kingdom was greater than in the previous year by a quarter—roughly the same as the general increase in world trade in piece-goods. That shortage no longer ruled the world market, however, seems illustrated by the subsequent history. The United Kingdom's economic difficulties had already induced the devaluation of the pound in late 1949. Despite that, British exports of cotton cloth were in 1950 down some 12 per cent, although world trade had *increased* by about the same amount. There was a surge in Lancashire's exports of piece-goods over the winter of 1950-1951—a rise of 7 per cent as compared with the two winter quarters of 1949–1950. But this did not suffice to restore 1951's total export of piece-goods to the former peak level. In the first half of 1951, total cotton cloth exports of the major textile exporting nations were running at a rate 27 per cent above that of 1949 : the United Kingdom rate was still 3 per cent *below* the 1949 figure.

Beyond that, however, the decline in the activity of the British industry seemed much greater, in the slump period, than that of its foreign rivals. We have not been able to make a satisfactory comparison of the employment statistics of the major exporting countries : and at the time of writing, sufficient statistical data is not available to make a comprehensive comparison of export trends over the slump period : we reproduce, however, a graph of the monthly consumption of raw cotton, by seven manufacturing nations, including the ' Big Four ', which illustrates the disparity.

The failure of the British industry to share fully in the ' boom ' expansion of exports may be partly attributed to its manpower difficulties and to the parallel buoyancy of its home market : its more drastic decline, to that peculiar structural ' acceleration ' already quoted.[1] There is, nevertheless, good reason to believe that price comparisons unfavourable to the U.K. product had an important impact. Before devaluation, the price of British printed cloth was dearer than that of any other important exporter except Holland and notably more expensive than the Japanese, Indian or American product. The effect of devaluation and the following exchange adjustments was broadly to narrow the differences between European exporters, but to leave their prices in general still substantially above those of the three other members of the ' Big Four '.[1] At the turn of the ' boom ', however, the export prices of most other countries were adjusted more quickly than those of the U.K., whose delay left it again at a distinct disadvantage even as compared with its neighbours in Western Europe.

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[1] International comparisons in activity are difficult to compile, of course, but since writing the above, we have seen the yarn and cloth production statistics collected by the United Nations (Monthly Bulletin of Statistics, February 1953, tables 21 and 22). These also show a greater fall for the U.K. in 1952. This decline seems also shown by raw cotton consumption figures continuing into 1953, long after mill stocks of materials had run down (see ' Cotton : Monthly Rview of the World Situation ', Washington, Feb. 1953 bulletin).

One can, of course, connect Lancashire's price disadvantage in cotton textile exports with, on the one hand, the lower level of wages in the Japanese and Indian industries, and on the other, the superior productivity and equipment of the American manufactory.[2] But that would not account for the ' lag ' in 1951-1952. Moreover, there is little doubt that the increase in Lancashire prices in the boom period much exceeded that required to cover raw cotton and other cost increases. A rough calculation for 1950-1951, for instance, suggests that if U.K. cloth export prices had increased only sufficiently to cover the increases in raw cotton wage, and other prime costs between those years, the excess of the resultant average Lancashire price for printed cloth over the U.S. export price (16 per cent in 1951) would have been halved, and that in other finished cloths the U.K. would have had a price advantage.[3] That this did not come about may be mainly explained by the common effect on both U.S. and U.K. manufacturers' margins of boom conditions. But there seems also a question of pricing policy involved.

The American industry is predominantly a ' vertical ' one—that is to say, the distinct major processes in the manufacture of cotton cloth (spinning, weaving, finishing) are carried on by the same firms. There is, therefore, no

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[1] The comparative movement and relation of export prices—on the upward grade—may be shown from the U.N. Economic Survey (op. cit—table 47) as follows :—

Comparative Levels and Movement of Export Unit Values (expressed in dollar terms) for printed cotton cloth (1949 U.S. export value=100).

	1949	*1950*	*1951*
U.S.A.	100	98	132
Japan	90	78	124
India	132	81	90
United Kingdom	178	124	153
Belgium	151	123	163
France	171	137	155
West Germany	134	112	152
Italy	156	117	154
Netherlands	195	134	157

(The comparison covers the first 9 months in each year ; for Japan the index covers all cloth other than grey : for India it covers dyed, coloured and printed cloth. The Indian figure we have calculated from the separate Table XIV in the U.N. Report).

No such detailed comparison is available for the latter part of 1951 and for 1952, but the differential in British prices and the lag in their adjustment have been noted by several observers : see for instance, D. C. Shaw and A. Shonfield (both already cited). The gap between the U.K. price and that of other members of the 'Big Four' was even more marked for greyt han for printed cloth. (See Table XXIV, U.N. Economic Survey of Europe in 1951).

[2] Dr. T. W. Kroese, in an article on the Japanese Cotton Industry in the International Cotton Bulletin (Series 1952) cites the following comparison :

	U.S.A.	*U.K.*	*Japan*
Cotton Operatives' Wages	100	26	8
Productivity per Man-hour, Spinning	100	60	22
Productivity per Man-hour, Weaving	100	33	22

[3] Calculation on basis of the U.N. Economic Commission's tables (see p. 118 n.1. and p. 119 n.1.), on B. of T. Index of raw material prices, on wage-lists and earnings data. The U.K. differential would apparently have been less even if *all* charges per yard had only increased in the same ratio as wages.

apparent reason why American prices should be fixed on different principles for cloths at different stages of processing. Since the American advantage is in processing costs, it should, on a price comparison of Lancashire and U.S. cloths of different finishes, ' a priori ' be most marked for cloths where the costs are high relative to the raw material, and vice versa : generally speaking, the relative difference between British and American prices should be least for grey cotton cloth and highest for the more elaborately finished cloths. The only recent analysis of export price-differences which has—to our knowledge—been published in any detail is that of the U.N. Economic Commission for Europe covering 1949 to 1951. This, however, suggests that the Lancashire cloth which was in fact consistently dearest from 1949 to 1951 relative to the American product was grey. The U.K. cotton cloths ran, in order of relative disadvantage to the U.S. equivalents, from grey cloth (nearly 60 per cent dearer than U.S. greys in 1951), through coloured, printed and dyed cloths, to bleached cloth, which seems to have been actually cheaper than the U.S. equivalents after devaluation:—10 per cent cheaper in 1951.[1] The order one would have expected to find would be : coloured, printed, dyed, bleached, grey.

It is also notable that the ' narrowing ' effect of increased raw cotton prices between 1950 and 1951 (the general ' narrowing ' over 1949 and 1950 was, of course, mainly an effect of the British devaluation) was not present for grey cloth prices. Between those years, U.S. prices rose 30 per cent on the average, while those of the U.K. only increased 25 per cent.[2] But for grey cloth, where the narrowing should have been most marked, the reverse occurred : the British price rose 37 per cent—much more than the American. The U.N. Report suggests that the particular dearness of British grey cloth was due to the greater increase in the price of raw cotton to British than to American manufacturers. But it is difficult to reconcile that explanation with the relative cheapness of bleached cloth, which (since bleaching is not an expensive process) also has a high raw cotton element. Nor is the anomaly to be explained by parallel oddities in the Lancashire wage-lists—which would probably have an opposite effect—or by quality differences : the general disparity between U.K. and U.S. prices in 1951 was not inconsistent with some quality advantage for the former's products, but this effect

[1] Source : U.N. Economic Survey of Europe in 1951 (op. cit.—Table 48). The detailed comparison runs as follows :—

Comparative levels of U.K. and U.S. export unit values (in dollars)

	United States			*United Kingdom*		
	1949	*1950*	*1951*	*1949*	*1950*	*1951*
Cotton Cloth :						
Grey	100	106	133	202	155	212
Coloured	100	96	127	196	134	165
Printed	100	98	132	178	124	153
Dyed in the piece	100	98	129	156	114	140
Bleached	100	107	136	137	103	123
Rayon :						
Yarn	100	96	110	139	104	133
Printed cloth	100	99	112	180	131	143
Dyed cloth	100	93	109	187	119	131

[2] See footnote 1.

should still have been more marked for coloured than for grey cloth. The anomaly rather suggests some distortion to be at work in the Lancashire pricing system. This, since grey cloth has no finishing costs, is likely to be found in either the spinners' or weavers' costs, or both.

Here another effect of the ' horizontal ' organisation of the Lancashire industry may be remarked : the position of the firms in each main horizontal branch (spinning, weaving, etc.) in relation to the market for its particular raw material and product. The production of rayon fibres is at present carried on by nine concerns only ; the greater part of the output of staple and filament rayon is produced by two firms; these last, however, themselves specialise respectively in viscose and acetate rayon, and those fibres are as much complementary as competitive. From 1940 until 1952, all raw cotton was, of course, imported by a Government agency. The preparation, spinning, and most of the doubling of staple fibres are all undertaken by firms among which the degree of concentration is considerable, a great part of the spinning capacity being in the hands of a small number of combines. There is, moreover, an effective price-fixing association among the spinners of cotton yarn.

Among the manufacturers of cloth, however—and these are of course the principal market for the spinners' output—the scale of operations is smaller, the number of firms much greater, and effective combination of any kind (with the possible exception of rayon weaving) lacking. Some three-quarters of the weavers' output, again, is purchased by ' converters ', who arrange for the further processing of cloth, and then sell it. The converters are even more numerous than the manufacturers, but the bulk of the trade is undertaken by a small number of these merchants. The finishing trade is dominated by combines, and works almost entirely on a commission basis, itself buying and selling cloth to a very small extent only.

These arrangements are familiar to all students of the industry ; they are clearly likely to concentrate competition within it upon its merchandising and, particularly, its weaving sections. These manufacturers are in an especially weak position because, though themselves dispersed, they must buy their raw material—yarn—in a market where the sellers are combined, and sell their product in a market which is competitive, but where there is a small group of very large buyers ; a market where, moreover, all purchasers of cloth for further processing must reckon with the charges yet to be made by the strongly-combined finishers. The most highly-concentrated sections of the industry, however, are to some extent shielded from the direct impact of the textile market's vicissitudes—the spinners by the manufacturers, and the finishers by the commission system. Within an industry itself unusually exposed, then, there is at least some protected ground.

Has this situation had any effect on price-relativities ? All sections of the industry appear to have taken some hand in the rapid increase in U.K. prices in 1950-51. Beyond that, however, there is little in the U.N.O. comparison or anything else we know of to suggest that the charges of the various finishers or of rayon producers increased with particular sharpness.[1] But it seems clear that the increases in spinners' and weavers' margins were notably acute in the boom period. Mr. Shaw records[2] that average mill margins (*i.e.* the difference between raw material and product prices) increased by about 70 per cent for spinning between September 1950, and July 1951, and that weaving margins rose after the spinners'. He also seems to imply that the weavers' margins increased less than those of the cotton-spinners, and states that they fell sooner. Our own data also suggests that they fell more steeply.[3]

Whatever the spinners' and weavers' respective contributions to Lancashire's price disadvantage in the boom, the major responsibility for the U.K.'s subsequent lag in price adjustment appears to be at the spinners' door. The prices of most other exporting countries began to fall quite early in 1951,

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[1] There seems an implicit suggestion in this contrast and what follows that of the two monopolistic forms—the large corporation or combine, and the price-fixing association—the former will be less likely to press the advantage of its position and be more flexible in its policy than the latter. We think that is probably so : the large corporation will have a centralised and coherent policy on the various aspects of its activities, and that is likely to include some sensitivity on the point of public opinion : moreover, its pricing is more likely to be guided first by some automatic costing principle. The price-fixing association, however, must find its lowest common denominator : it is not likely to endure at all unless its member firms already enjoy a certain near-monopolistic security : when demand is rising, its members individually will raise their prices, and the association will tend to run behind to formalise them. When demand falls, however, the necessity of securing agreement may delay and limit price adjustment.

[2] D. C. Shaw ' Prices and Margins in the Cotton Industry ' (op. cit.). The printed paper does not reproduce Mr. Shaw's calculations but summarises the main implications they contain.

[3] A calculation on some standard medium-weight cloths (prices from private sources), using published data on raw cotton and yarn prices, gives the following changes in margins over the boom-slump years :

	Cotton Spinners' Margin	*Cotton Weavers' Margin*
Mid-1950	100	100
Mid-1951	141	216
Mid-1952	99	95

Mr. Shaw (op. cit.), however, based his conclusions on the much wider—though unpublished—data used for the Board of Trade Wholesale Price Index itself. The above is not inconsistent with his results (there was a bigger increase in spinners' margins on finer counts) but there is nevertheless some reason to believe the above relations to be untypical.

The Board of Trade Wholesale and Commodity Price Indices themselves show the following prices changes :

	Increase or Decrease in Prices (%)		
	Raw Cotton	*Cotton Yarn*	*Cotton Weaving*
From mid-1949 to mid-1950	+41	+31	+26
From mid-1950 to mid-1951	+74	+68	+54
From mid-1951 to mid-1952	—32	—32	—31

Taking in 1951 raw cotton as being approximately two-thirds of the cost of yarn, and yarn two-thirds the cost of grey cloth, the average increase in spinners' and weavers' margins between June 1950 and June 1951 would be, on the above bases, 59 per cent and 34 per cent respectively. If wages were further assumed to have accounted for one-quarter of mill margins in 1951, these increases were 55 per cent and 28 per cent greater respectively than those required to cover raw material and wage increases.

The information on rayon is less detailed. The increase in the price of rayon fibre between 1950 and 1951 was (on the Board of Trade Index) 26 per cent, which does not seem much out of line with the various sulphuric acid price increases (See Board of Trade Index) and very moderate in the light of increases in the price of imported wood-pulp—on the U.N. Economic Survey (op. cit. Table 4) 165 per cent in the third quarter of 1951 over the first half of 1950. The increase in the price of rayon *yarn*, on the other hand was 28 per cent (on the United Nations' index used in p. 119 n. 1); it seems probable then that the increase in rayon spinners' margins was also disproportionate. We have no separate data for unfinished rayon cloth, but it is to be noted that (on the U.N. comparison again) the Lancashire price disadvantage on rayon yarn was not increased by weaving and dyeing.

when British prices were still rising. The U.K. weavers' margin had fallen by the autumn of the year. But the spinners' margins were in October still at their spring level, and no significant reduction in them took place[1] until early in 1952. Moreover, a detailed examination of spinners' margins over the whole post-war period suggests that even before the ' Korean ' boom their contribution to the general dearness of Lancashire fabrics was by no means small.

We give in an accompanying Table (C) a note of the movement of raw cotton prices, yarn prices, and spinners' margins for five common counts of yarn between August 1939 and January 1945, and from January 1945 to October 1952 at quarterly intervals. We do not know the principles on which controlled prices were determined in the early post-war period, but the movement of yarn prices would roughly correspond to those of raw cotton plus increases in the mill margin to cover first, the consequential rise in the cost of cotton wastage in the preparatory and spinning processes, and secondly advances in the agreed wage-lists.[2] The mill margin of course, embraces other items—profits, fuel and power, interest charges, etc.—but the remaining prime costs are small,[3]while depreciation and other capital increases were presumably covered, in the price per unit of yarn, by rising production.[4] After the relaxing of controls, however, the mill margins rose fast, and without observable relation to other cost increases. In January 1951, spinners' margins[5] were, for the 'American' yarns between 146 per cent and 206 per cent, and for the ' Egyptian ' between 192 per cent and 234 per cent above those ruling in January 1946. By way of contrast, the increases in margins necessary to cover wage advances and higher waste costs[6] over this period would have been between 55 per cent and 60 per cent.

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[1] See our own Table C.

[2] Calculations as in footnote 6.

[3] There is a cost table for a medium weight cloth in Table (1) of Dr. Robson's paper. For reasons we need not detail here, however, we have not found it possible to apply this in other connections.

[4] Output of yarn increased by nearly half between 1946 and 1951. The amount spent on new equipment by the spinning industry over the period was (according to a statement by the chairman of the Cotton Board) some £30,000,000. On a rough calculation of capital value per spindle, the presumption seems adequate.

[5] As calculated from Table C. the general effect may be set out :

Raw Cotton Prices. Yarn Prices and Mill Margins for five counts of yarn
January 1946—January 1951

	'American'	*'Egyptian'*
Increase in Raw Cotton Prices	290%	440%
Increase in Yarn Prices	226–248%	298–300%
Increase in Mill Margins	146–206%	172–234%

As far as recorded price quotations permit, we have tried to chose counts that fairly represent the general movement, though data on count distribution is inadequate to judge how accurately they do so. The existence of a substantial disparity between ' Egyptians ' and 'Americans ', however, does not seem in question (for instance ' Tattersall's 'comment, as late as February, 1953, on the confining ' effects of what are believed to be high prices ' for Egyptians).

[6] Calculated on raw cotton prices (assuming 10 per cent to 12 per cent waste on 'Americans ' and 20 per cent to 22 per cent on ' Egyptians ') and on the increase in cardroom and spinning 'List' rates up to and including the 'bonus' from January 1951 ; proportions of wage costs in mill margins based on private information giving these as approximately one-third for typical yarns in last quarter of 1952. An index of wage-rates in cotton has recently been compiled by Miss G. Evans, and an account of this was given to the Statistical Methods group of the Manchester Statistical Society in November, 1952.

The reduction in yarn margins after the 1951 peak, does not, moreover, seem to have been in any way remarkable in relation to what is known of spinning costs. British yarn prices, indeed, had in January 1952 actually been raised above those ruling six months before, while mill margins were little below the ' boom ' figure for 'American ' and well above it for the ' Egyptian ' yarn. Even in October 1952, mill margins were for the'American' about 80 per cent and for the ' Egyptian ' 100 per cent above the 1946 levels, although no further increase in wage rates[1] had occurred since January 1951, and raw cotton prices were lower. In two of the three 'American ' yarns quoted in Table (C), the mill margin remained, in the former month, at a higher level than in the period of 1950 when cotton was comparable in price, whilst the margin on both ' Egyptians ' was well above the earlier figure.

This involves the Yarn Spinners' Association. Price-fixing agreements of sorts existed between cotton spinners before the Second World War, but at that time many firms were apparently reluctant to undertake formal engagements. After the war, however, these agreements were revived : in 1947, the Yarn Spinners' Association was formed : and by 1950 an overwhelming majority of the spinning trade, whether in terms of companies or capacity, was bound by its covenants.[2] The full stated objects of the Association cover a range of matters as wide as those with which the Cotton Board itself is concerned. But its principal business is apparently to determine, for each of the main sections of the cotton spinning industry, a ' margin ' to cover mill costs, which (by addition to the price of raw cotton per lb.) sets a minimum price for yarn below which no member may sell, and to prescribe a standard contract form (designed to prevent evasion) which all members must adopt.

The Association's minima had little effect on yarn prices between the ending of control and the climax of the ' Korean ' boom. The general prosperity of the industry, and the special position of the spinners within it ensured that their prices should be high. But their agreements certainly had a powerful effect after the turn—from late 1951 onwards. They are drawn up and modified by sectional committees of the Association, and there was thus an administrative time-lag in adjustment. The ' margin ' method of regulation gave British yarn prices a sharp upwards twist when in winter 1951–52 raw cotton ' bounced ' back temporarily after its heavy fall from the peak price[3] of spring 1951. And, most important, the level to which the Association finally adjusted spinning margins in 1952 was not one which bore much apparent relation either to the trend of domestic buying of clothing and the like or to the new intensity of foreign competition[4]—only a very small part of the cotton spinners' output is directly exported—but seemed rather designed to preserve the same return as the margins (already high) obtaining on the eve of the Korean outbreak.

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[1] The agreement of late summer 1951 did not increase actual wage-rates per unit, since it merely consolidated the ' bonus ' on the earlier part of the year.

[2] A list of the associated concerns is given in the published Agreementof the Association.

[3] A similar ' bounce ' has been noted in the raw wool price movement by Mr. Brothwell (op. cit.).

[4] We have heard it put that the ' margin ' at this time was calculated on the assumption of a very low utilisation of capacity. If this is so, it seems to involve the proposition that when demand is falling, prices *should* be raised.

In sum, we think there to be little doubt that cotton yarn-spinners' margins took a disproportionate part in the rise in prices of Lancashire textiles, both at home and abroad, in the industry's period of post-war prosperity. And that their agreements delayed and restricted the industry's adjustment to its more recent situation. The Association's minima, in effect, set a floor to the revision of cotton cloth prices generally.

On a short view, the Association's rule may well have benefitted its members, whatever its effect on the industry as a whole. Tattersall's sample analysis of the trading results of cotton companies[1] in 1952 shows that spinning concerns maintained average profits very little below those of the previous year, and paid average dividends which even slightly exceeded those of 1951, whereas both profits and dividends of cotton weaving companies fell sharply. But in the longer run, the cotton-spinners' pricing procedures may not have been without adverse effect on the spinning section itself. Even when the pressure of home manufacturers' demand for yarn was released by the recession, direct exports of cotton yarn remained at a very much lower level, relative to either the pre-boom or the pre-war position, than those of cloth.[2] At the end of 1952, monthly output of spun rayon approached that reached in the 1951 boom, and of mixed yarns much exceeded the previous peak figure, while use of filaments was accelerating fast. But output of single cotton yarns had only recovered to about 70 per cent of the peak rate. Other factors may also have favoured the transfer, but such regulation of margins as exists in rayon is apparently less exigent than in cotton-spinning. From the broader economic viewpoint the substitution may be desirable: but the result certainly exceeds the spinners' intention. Whatever the ultimate price they may themselves be called on to pay, a more immediate effect—in terms of employment—was felt, it seems, by their operatives. 'Where minimum rates could not be obtained in the market production has been curtailed and in this way the supply has been closely adjusted

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[1] A review of cotton company trading results in 1952 (*Financial Times*, Jan. 9th, 1953, based on 'Tattersall's' January return) runs:

	Average Dividends %		*Average Profits* *£ Thousands*	
	1951	*1952*	*1951*	*1952*
Spinning concerns	21.26	21.51	55.54	55.15
Weaving concerns	31.79	24.99	120.49	79.84

Based on a sample of 21 weaving companies in each year, and of 86 and 87 spinning companies in 1951 and 1952 respectively. It seems probable, however, that a *general* fall will be seen when results for the period from late 1952 onwards are comprised.

[2] The contrast may be shown:

	Cotton Yarn	*Cotton Cloth*
Exports in 1952 as a per cent of 1938	29	52
Exports in 1952 as a per cent of 1949	44	79

We do not give the '50 or '51 comparisons because in the 'boom' months spinners were constrained to divert a still greater part of their output to U.K. weavers. The general disparity is clear, however, and is the more notable in that 'native' development in overseas industry tends to be faster in weaving than spinning.

to the demand,' says the account of the general meeting[1] of the Yarn Spinners' Association of December 1952. The high level at which minimum margins for fine yarn in particular were maintained has been noted: it also seems true that the depression of the Bolton fine-spinning section was more severe than that of any other main branch of the cotton trade.[2]

Addresses of spinning company chairmen in the months after the recession were unanimous in commending the ' stability ' conferred by their agreements: and this argument has strong appeal to both employers and operatives in the cotton industry.[3] Memories of the inter-war depressions are still central to their outlook on these matters: they fear the consequences of an internicine struggle for existence because they know them. But *this* stability is a dubious one. The Association's ' margin ' system of regulation in fact reproduced just that instability of raw cotton prices to which the industry attributes so much misfortune. By contrast, the rayon producers also maintained a stability in 1951 and 1952: but one of selling price, which ignored the vicissitudes of their raw material costs, and aimed (apparently with some success) to encourage confidence in potential purchasers. Even more important is the level at which ' stability ' is to be held. In the light of home and especially international trends in 1951–52, *flexibility* might well have served the U.K.'s industry better. After all, death is a stability.

CONCLUSIONS AND COMMENT

Since we have now passed from the area of interpretation to that of comment, it would be as well first to summarize. Broadly, we (like others) think the 1952 recession signalled, for the British cotton industry, the end of a brief epoch in which the competition, both of other countries *and* other commodities, had been unnaturally restrained: but that there was at least one important respect in which the U.K.'s cotton industry contributed to its own dêbacle.

It may well be held, however, first that the high post-war price of Lancashire textiles was an inevitable consequence of shortage and of the difficulty (or impropriety) of detailed governmental control, and second that it was good that the price of U.K. cottons should be high. The great national need was for foreign exchange, and—so long as the goods could be sold—high prices kept down home demand, brought in foreign currency, and (incidentally) gave the industry very substantial financial reserves with which it might re-equip or otherwise prepare itself for harder times.

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[1] *Manchester Guardian* Trade Notes, December 17th, 1952. The implication that demand was not affected by price in this period may have a certain validity in the home market for finished goods, but is dubious for semi-finished materials and for exports generally. Three ' vertical ' concerns resigned from the association the previous year, apparently because they saw no point in having the price of their own yarn fixed to themselves (and hence the price at which they could sell their cloth to others) by the Association. In effect they thought their membership as spinners to hamper their competitive capacity as weavers. Since they do not sell yarn as such, however, their action made no significant break in the Association's governance.

[2] This we base mainly on personal discussions and on unemployment experience. There is some more general evidence for it, however, in spindle activity figures and in the very great decline in U.K. imports of Egyptian cotton over 1951 and 1952 as compared with the coarser varieties.

[3] The argument, however, is not easy to reconcile with that submitted by the master spinners' and manufacturers' associations to the Industrial Disputes Tribunal (Award of Jan. 23rd, 1953, on a cotton wage-claim): ' Stability could only be achieved by keeping costs down '. Not, of course, that low prices necessarily mean low earnings.

If there was a ' consumers' strike ', however, the high prices brought it on, while they certainly encouraged overseas buyers to transfer to other sources of supply so soon as these became available. But that, perhaps, might have been avoided if the trade had been able to show more flexibility in the face of oncoming change, and if all the barometers of that change—particularly the collected but unpublished data on orders and stocks—had been more widely known. As it was, the industry as a whole continued, in 1951, to behave as if boom conditions still prevailed, although they were already passing.

Again, however, it may be said to be no bad thing that those sections of the cotton trade that were organised to do so should have tried, in 1951 and 1952, to have maintained a level of return equal to that which had sufficed in the immediate past to prevent the transfer of resources to other industries, since their failure would have the result of encouraging just the last event. That, however, is to accept the tenet that in the long (or now, not so long) term, the British cotton industry must resume its decline, and give way to products more suited to maintain the British position in world trade. The view is eminently arguable: it was held by at least one group of advisors to the government that presided over the cotton industry's post-war expansion that this should be seen only as a temporary affair, justified to exploit the immediate world textile shortage for foreign exchange purposes.[1]

Insofar as that view implies that there is now no reserve of efficiency within the industry, it would not be accepted either in the trade or among its technical observers.[2] But the concomitant of that policy would in any case have been the preparation of alternative employment against the time of plenty. As a whole, ministers and official agencies of all kinds, however, were at one in assuring the cotton industry, and particularly its operatives or potential operatives, of its future security. And they seem at least to have convinced themselves.[1]

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[1] Thus a research group of the Fabian Society argued, in November 1945 (' Cotton : A Working Policy '), that there were . . . 'strong arguments on national grounds for an over-large cotton industry immediately after the War.' Moreover : ' Cotton production will be profitable . . . an opportunity for Lancashire to make much-needed renovations and changes in her capital equipment.' But the group argued ultimate demand to be limited and did not anticipate that re-organisation or re-equipment could reduce prices . . . ' to the extent required to bring about any really substantial change in the competitive alignment of the textile producing countries ' . . . ' if the industry is to be stretched beyond what seems likely to be its long-term post-war scale, there ought to be . . . a clear programme for removing the incubus of excess capacity and for providing new employment for the displaced workers when the honeymoon is over.'

[2] The Economic Commission for Europe in its new (at the time of writing) ' Economic Survey of Europe since the War ' is reported to argue the post-war investment in textiles to have been misdirected as perpetuating the production of obsolescent fibres, and that future re-equipment should be confined to rayons and synthetics. Short of major re-equipment, however, the enquiry and educational work undertaken by the Cotton Board, the Shirley Institute, and several official committees and commissions have ensured that the methods by which cotton textiles may be more efficiently made are now widely publicised : indeed repetition may have dulled their reception. The problem remains one of how to get them adopted. There is now, however, an outstanding question, the solution to which is unlikely to be attained by propaganda, and which has by contrast been subject to a certain silence; that of excess capacity. That shift-working raises this problem so sharply, we think, may be one reason why Lancashire employers have substantially failed to develop it as a means to reduce prices. The level of utilisation of U.K. spindleage was, in 1950–51 (see International Cotton Bulletin, Jan.–Feb. 1952– the lowest recorded in the world.

We make no attempt to forecast the future level of demand for the industry's products. That will depend on general economic conditions, on the movement and sharing of real income, on the development of public taste, on international events, on government policy, and on the policy of the industry itself (or rather of its sections). We do not, however, accept the view that the cotton slump was a sort of bad dream, brought on by speculative over-indulgence. Nor does the recovery of several sections of the cotton trade in the latter part of 1952 offer any support to that belief. If only because the stoppage of production so vastly exceeded the fall of demand, some recovery was inevitable: its final extent remains to be determined. But though temporary circumstances complicated and sharpened the affair, as did also—and very greatly—the structure of the industry itself, we suggest the slump to have been associated with two fundamental things: the trend of the world economy, and the susceptibility of textiles to shifts and changes in popular income and expenditure. These central conditions remain unaffected by any recent, or immediately foreseeable, event.

We have encountered an opinion in the industry that would recognise the changed world conditions but still find consolation in the sense that, even if the golden days are gone, the trade is assured of a modestly prosperous security in the home and Commonwealth markets. It remains true, however, that an instability of the home market set off the slump. It is secondly the case that nearly four-fifths of Lancashire's 1951 export was to British Dominions and colonies. But among these, not even the white Dominions have been so far exempt from the world tendency as to meet their increased textile demand since 1939 from Lancashire rather than their own manufacture. Only the African cotton-growing territories constitute, in all the world, an exception to the general rule that both exports of raw cotton and imports of cotton manufactures fall[2]—and that seems to us as much a poltICIAL as an economic effect.

But there is, in any case, behind this comforting view a supposition: that if the industry cannot compete with America and India (as much now the bogies of Lancashire exporters as the once-abominable Japanese), it can still retire behind a protective tariff barrier. The political influence of the County may well be such that it can keep safe its home-preserves. But Colonial Legislatures may take a less charitable view of suggestions that the underclad coloured peoples who now purchase some two-fifths[3] of the United Kingdom's cloth exports should pay more than they need to keep Englishmen employed, and too great a price margin over the products of our more respectable rivals may strain even the white Dominions' sympathy. These markets at home and abroad, then, give only ground on which to work. They offer the industry no escape from the problems of its organizations or its competitive efficiency.

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[1] 'Diversification of industry in Lancashire has been carried far enough', the Parliamentary Secretary to the Board of Trade, to the Lancashire Industrial Development Association, Jan. 9th, 1950.

[2] On these things, see Mr. Robson's table 4 again.

[3] A very rough estimate!

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University of Manchester.

Roland Smith,
University of Birmingham.

TABLE A.

Consumer's Total Expenditure, Clothing, Purchases, and Real Wages, 1949–52

	1949					*1950*					*1951*					*1952*	
Quarters	*1st*	*2nd*	*3rd*	*4th*	*(year)*	*1st*	*2nd*	*3rd*	*4th*	*(year)*	*1st*	*2nd*	*3rd*	*4th*	*(year)*	*1st*	*2nd*
(1) ' Real ' Consumers' Expenditure on all goods and services (average of 1949 as 100)	93	99	102	106	(100)	94	100	105	109	(102)	100	101	102	103	(101.5)	95	99
(2) ' Real ' Purchases of clothing :																	
(*a*) on average of 1949 as 100	84	106	88	122	(100)	88	103	101	125	(104.5)	101	99	80	103	(96)	77	94
(*b*) as a per cent of ' Real ' total expenditure	8	9	7.5	10	(8.75)	8	9	8.25	10	(9)	8.72	8.5	6.75	8.5	(8)	7	8
(3) ' Real ' Wages of manual workers : (Average of 1949 as 100)	100	100	100	100	(100)	100	101	103	104	(102)	105	103	101	101	(103)	101	—

(1) Calculated from Tales of Personal Expenditure on Consumer's Goods and Services, Revalued at 1948 Prices ' Monthly Digest of Official Statistics.'

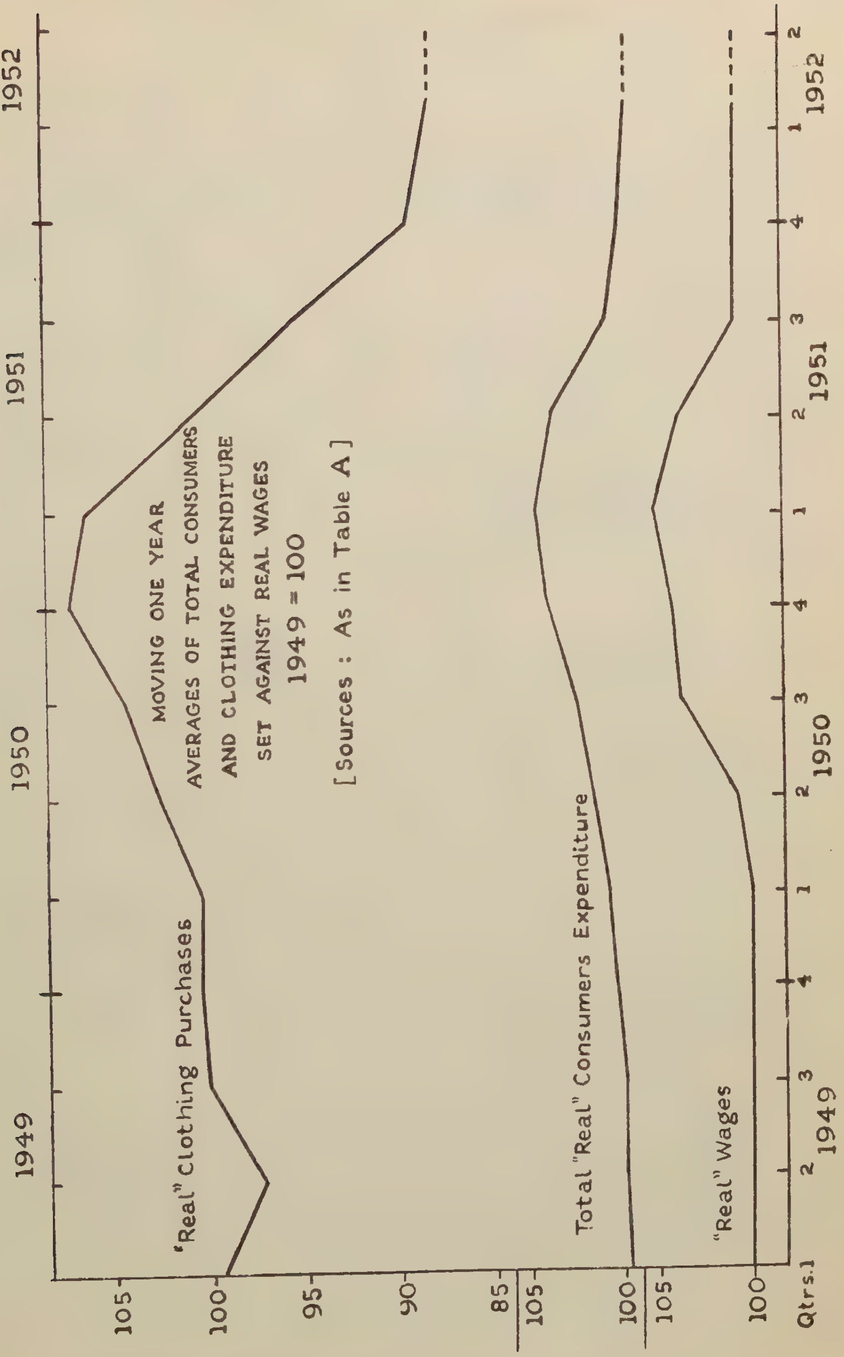
(2*a*) Calculated from Tables of Personal Expenditure on Consumer's Goods and Services, Revalued at 1948 Prices, ' Monthly Digest of Official Statistics.'

(2*b*) Calculated from (1) and (2*a*).
(3) Derived from Ministry of Labour's Six-Monthly Returns of Average Earnings, and Index of Retail Prices.

TABLE C. *Raw Cotton Prices, U.K. Yarn Prices and Mill Margins, 1939 and 1945–1952 (in pence per lb.)*

		American Middling Upland	*32's Weft (American)*	*Mill Margin* (1)	*20's Ring (American)*	*Mill Margin* (2)	*42's Weft*	*Mill Margin* (3)	*Egypt'n Uppers Swan (Ashmouni)*	*80's Yarn (Egyptian)*	*Mill Margin* (4)	*42's Twist (Egyptian)*	*Mill Margin* (5)
Aug.	1939	5.41	9.30	3.89	8.38	2.97	10.41	5 0	6.01	16.06	10.05	14.5	8.49
Jan.	1945	12.25	21.45	9.20	21.56	9.31	23.06	10.81	13.90	42.0	28.10	27.75	13.85
April	,,	12.25	21.45	9.20	21.56	9.31	23.06	10.81	13.90	42.0	28.10	27.75	13.85
July	,,	12.25	22.34	10.9	22.18	9.93	24.11	11.86	13.90	44.75	30.85	29.50	15.60
Oct.	,,	12.25	22.34	10.9	22.18	9.93	24.11	11.86	13.90	44.75	30.85	29.50	15.60
Jan.	1946	12.25	22.34	10.9	22.18	9.93	24.11	11.86	13.90	44.75	30.85	29.87	15.97
April	,,	12.25	23.12	10.87	22.58	10.28	25.58	13.23	13.90	47.45	33.55	30.60	16.63
July	,,	13.25	24.22	10.97	23.68	10.43	26.68	13.43	15.83	50.95	35.10	32.60	16.77
Oct.	,,	13.25	24.22	10.97	23.68	10.43	26.68	13.43	15.85	50.95	35.10	34.03	18.18
Jan.	1947	19.00	31.20	12.20	30.72	11.72	33.69	14.69	21.15	57.25	36.10	39.25	18.10
April	,,	19.00	31.20	12.20	30.72	11.72	36.69	14.69	21.15	57.25	36.10	39.25	18.10
July	,,	21.00	33.20	12.20	32.76	11.76	35.69	14.69	22.15	58.50	36.35	40.00	17.85
Oct.	,,	21.00	32.30	12.20	32.76	11.76	35.69	14.69	22.15	58.50	36.35	40.50	18.35
Jan.	1948	21.00	32.20	12.20	32.20	11.20	35.69	14.69	22.15	58.50	36.35	40.50	18.35
April	,,	23.00	35.94	12.94	35.47	12.47	38.76	15.76	44.55	97.07	52.52	61.50	16.95
July	,,	25.00	38.14	13.14	37.74	12.74	40.96	15.96	34.55	104.01	69.46	60.50	15.95
Oct.	,,	21.50	35.93	14.43	34.86	13.36	38.79	17.29	29.25	89.41	60.16	53.15	23.90
Jan.	1949	22.50	37.44	14.94	35.98	13.48	39.89	17.39	30.75	97.02	61.27	54.00	23.25
April	,,	23.25	38.27	15.02	36.83	13.58	40.72	17.52	27.75	85.75	58.00	50.00	22.25
July	,,	23.50	38.70	15.20	38.07	14.43	43.25	19.75	25.75	87.20	61.45	51.25	25.50
Oct.	,,	29.15	44.95	15.80	44.44	15.29	49.75	20.60	32.75	91.33	58.58	58.80	26.05
Jan.	1950	29.65	49.87	20.22	45.53	15.88	52.82	23.17	40.40	96.26	55.86	65.50	25.10
April	,,	31.65	52.27	20.62	48.89	17.24	56.92	25.27	41.35	100.67	58.32	69.00	27.65
July.	,,	33.15	53.92	20.77	50.27	17.12	58.77	25.62	42.35	100.67	58.32	73.90	31.55
Oct.	,,	39.36	56.48	17.12	60.25	20.89	63.20	24.04	46.35	106.16	59.81	86.52	40.17
Jan.	1951	47.80	74.75	26.95	72.32	24.52	84.15	36.35	75.24	179.0	103.76	118.75	43.51
April	,,	51.54	72.59	21.04	77.38	25.84	81.57	30.03	75.70	179.0	103.30	121.50	45.80
July	,,	44.54	68.28	23.74	74.79	30.25	78.69	36.15	66.34	171.25	104.91	113.50	47.16
Oct.	,,	40.00	61.03	21.03	67.73	27.73	71.87	31.87	55.72	160.23	104.51	105.15	49.43
Jan.	1952	45.50	71.08	26.58	73.40	27.90	79.99	34.49	60.00	174.72	114.72	105.00	45.00
April	,,	41.08	59.52	18.44	60.62	19.54	66.15	25.07	50.00	157.96	107.96	82.25	32.25
July	,,	39.00	57.61	18.61	58.36	19.36	64.40	25.40	40.00	132.0	92.00	72.00	32.00
Oct.	,,	38.82	57.72	18.90	58.28	19.46	64.08	25.26	40.55	121.94	81.49	67.37	26.82

[1] Prices, average quotations for each month. Source of cotton and yarn prices *Textile Weekly* (whose quotations also correspond closely to those of 'Tattersall's' and 'Cotton)' except for 42's Egyptian, which is calculated from 'Cotton.' Mill Margins by subtraction.

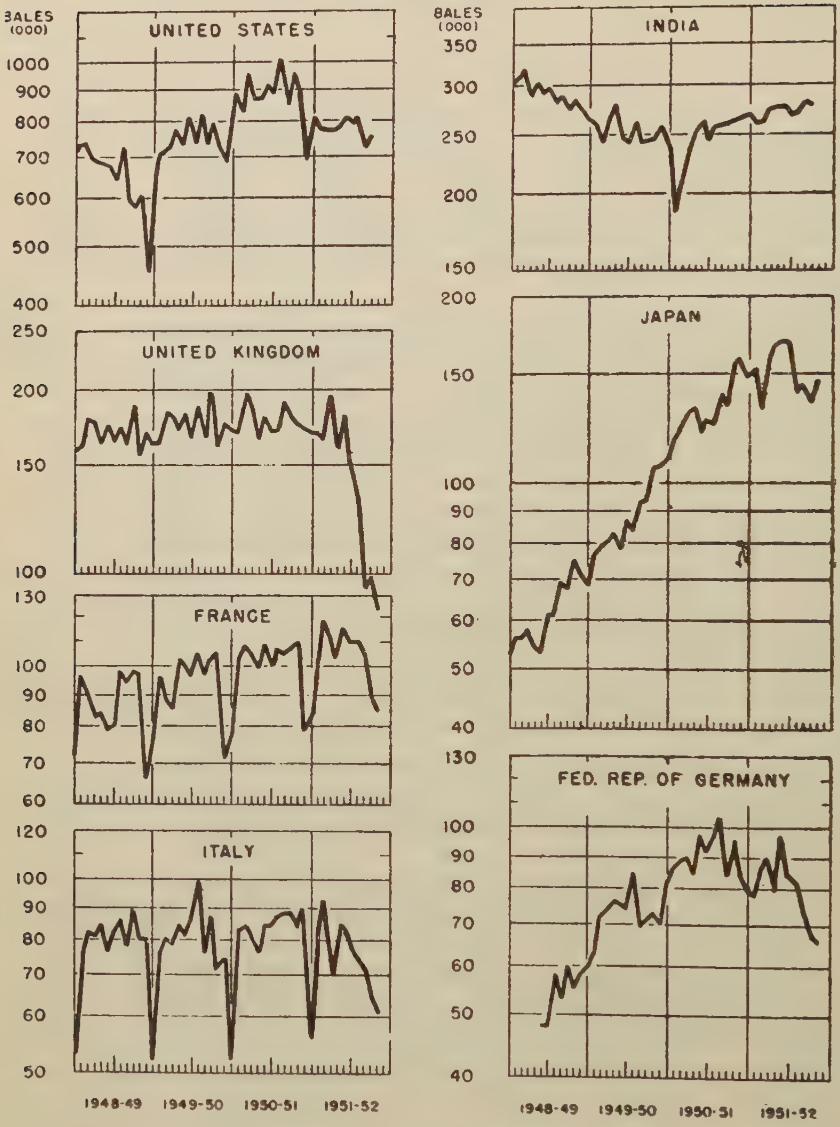


MOVING ONE YEAR
AVERAGES OF TOTAL CONSUMERS
AND CLOTHING EXPENDITURE
SET AGAINST REAL WAGES
1949 = 100

[Sources : As in Table A]

MONTHLY CONSUMPTION OF COTTON

YEARS BEGINNING AUGUST 1ST



Source : *Cotton Monthly Review of the World Situation*, International Cotton Advisory Committee, Washington.

ECONOMIC DEVELOPMENTS IN 1952 AND FUTURE PROSPECTS

1. *The background*

Any assessment of developments in 1952, and of their implications for the economy in 1953, must begin with a discussion of what had taken place still earlier. So many of the developments in 1952 were consequences of earlier events that some attempt to put them into their context must be made, even though at this date, and in this space, the discussion must be rather selective and superficial.

There were already signs well before the summer of 1950 that the world-wide post-war boom was faltering, but the end of the boom was temporarily postponed by the Korean war and growing international tension. As raw material prices, stimulated by heavy American purchases, soared upwards, Britain's terms of trade deteriorated, but our exporters benefitted from the resurgence of world demand. Moreover, purchases at home were stimulated by the anticipation of higher retail prices: the textile ' buying spree ' is a notable example. So manufacturers' order books, which had been thinning out, filled up once more. Another consequence of the boom was a rapid rise in our dollar reserves as the earnings of sterling-area primary producers increased.

In 1951, there was a reaction against the excesses of the winter of 1950–51. Consumers' purchases at home naturally fell back after the abnormal boom, and the fall was particularly sharp when the price rise reached the retailers. Since there were similar developments in the U.S. and elsewhere, prices of raw materials, and particularly the prices of sterling area commodities, began to fall. The dollar earnings of the sterling area therefore declined sharply. The terms of trade, however, were still relatively unfavourable for Britain, and as the volume of imports had been forced up by the earlier boom, and by the stockpiling programme, there was a deterioration in our balance of payments and a fall in the dollar reserves. In the winter of 1951, our imports were cut sharply in an attempt to balance our external accounts. Other sterling area countries were also experiencing a run on their reserves (the ' sterling balances '), because although the value of their exports had declined, they were still taking delivery of goods ordered in response to the commodity boom.

In this country, output, although no longer increasing, continued to run at a high level in 1951. The textile industries, whose output had increased to record post-war levels early in the year, began to feel the impact of a falling demand at home and abroad. Although production declined, there was a considerable accumulation of textile stocks as demand fell off faster than output. But this decline in the output of textiles, and some other consumer goods industries, was more than offset by the continued increase in the output and exports of the metal-using industries.

In 1952, the adjustments continued. The fall in textile output gathered momentum whilst the abnormally high stocks were liquidated. In the summer, the decline in orders became more general, and production was cut back fairly severely. The metal industries, which until then had escaped the recession, were also affected. The main cause of the summer recession seems to have been the sharp fall in exports. World demand was less buoyant, and the import restrictions imposed by a number of sterling area countries to protect their sterling balances seriously reduced some of our exports. But our own import cuts of November 1951 and March 1952 had already begun to take effect, and with the help of an improvement in our terms of trade we were apparently able to achieve a small surplus in our payments despite this fall in exports. Whereas in 1951 imports and exports both increased, but imports increased faster than exports, in 1952 both imports and exports fell, with imports falling faster than exports.

The autumn of 1952 saw a recovery from the low output levels of the summer. Excess stocks (including consumers' own stocks) had largely been worked off, and a small rise in home and export demand induced an increase in output. But the recovery achieved by the end of the year was disappointing, with output and exports running well below 1951 levels.

This analysis suggests that over the past 2½ years the wavelike fluctuation set in motion after the start of the Korean war may have obscured a trend of increasing difficulty for British exporters, and that the weakness of our competitive position in world markets is now more apparent. The remainder of this paper discusses developments in 1952 in greater detail, and considers future prospects.

2. *The Balance of Payments*

International trade had shown weaknesses in the first half of the year, but it was not until the third quarter that British import cuts and overseas import cuts both took full effect. The volume of trade fell sharply, and the recession reached metal goods which had largely escaped the earlier fall in demand.

In the fourth quarter, trade turned upward again. The terms of trade had ceased to turn so sharply against our customers, and the import cuts had slowed the decline in their reserves. On the other side of the account, British imports (particularly of raw textiles) could hardly be maintained for long at the third quarter's levels. But the recovery left the levels of trade considerably below those of the first half of the year. The volume of imports of food, drink and tobacco, had fallen to the lowest level for several years and in the fourth quarter it was still below the levels of 1949 or 1950. For exports the recovery came mainly in textiles and in unmanufactured products, except that refined petrol exports grew steadily through the year.[1] The volumes of both imports and exports for the year as a whole had reverted to about 1950 levels. (This was also true of many individual items).

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[1] This has now become one of our main exports, its value in 1952 exceeding well-known lines such as whiskey, radio apparatus, textile machinery, aircraft and cycles.

TABLE I

United Kingdom Balance of Payments (including defence aid)
(£ millions)

	1951			
	Jan.–June	*July–Dec.*	*Jan.–June (Prov.)*	*July–Dec. (Estim'd.)*
Imports (f.o.b.) :				
(*a*), (*b*), Food, tobacco	*630*	*700*	*626*	530
(*c*), (*d*), Raw materials, petroleum ...	*836*	*933*	*890*	670
(*e*), (*f*), Other	*180*	*215*	*184*	160
Total visible imports	*1,636*	*1,848*	*1,600*	1,360
Invisible imports	*333*	*456*	*415*	415
Total payments	*1,979*	*2,304*	*2,015*	1,775
Exports (f.o.b.) :				
Vehicles	215	230	245	210
Machinery	225	240	275	250
Other metal goods	140	145	175	160
Metal products	575	615	695	615
Textiles and clothing	270	275	225	170
Other manufactures	235	295	295	245
Total manufactures	1,075	1,185	1,205	1,030
Other exports and re-exports	235	220	310	285
Total visible exports	*1,310*	*1,405*	*1,516*	1,325
Invisible exports[1]	*601*	*506*	*581*	550
Total receipts[1]	*1,911*	*1,911*	*2,097*	1,875

(Official estimates are in italics).
[1] Includes defence aid (net of U.S. share of counterpart funds).

The improvement in the balance of payments was very largely due to the considerable improvement in the terms of trade. It seems that there was another small surplus (excluding defence aid) in the second half of the year: taking defence aid into account, it may have been of the order of £100m., although in a year as diverse as 1952, changes in time-lags, in c.i.f. margins and in invisible items are particularly hard to handle.[1]

To turn to the financing of the current account balance. The improvement in the gold reserves can be attributed entirely to American aid, since other transactions yielded a continued net dollar deficit. The rise in reserves in the second half of 1952 was $160m., which can be broken down into $225m. received in American aid, $85m. received from E.P.U., and $30m. in other transactions[1] as against $180m. paid in service of the U.S. and Canadian loans. Since the current account surplus, together with the defence-aid, was more than enough to account for the improvement in reserves, there was probably a slight improvement in Britain's net capital position in the second half of 1952 so far as non-dollar funds were concerned.[2] Unless therefore there were considerable transfers of capital, the total of U.K. sterling liabilities outstanding will have continued to fall,[3] though this fall will have mainly, or wholly, occurred in the third quarter.

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[1] In drawing up our tables, we assumed that exports in the White Paper will continue to exceed substantially those shown in the trade returns, partly because of the exports of items excluded from the returns, but also because the proportion of exports going to far destinations has declined. This shortening of the length of voyage means that the arrivals (*i.e.* White Paper exports) fall less than the departures (*i.e.* trade return exports) in any given period. No attempt has been made to allow for this in estimates of individual categories of exports—a rough adjustment has been made to 'other exports and re-exports'.

TABLE II

Domestic[1] Balance of Payments at 1948 prices, NOT seasonally corrected
(£ millions at annual rates)

	1949	1950	1951	1952	1952			
	Year	Year	Year	Year	I	II	III	IV
Imports (*f.o.b.*) :								
(*a*), *b*) Food, Drink, Tobacco ...	970	900	1,010	850	950	850	760	830
(*c*), (*d*) Raw Materials, Petroleum	770	830	960	880	920	900	810	880
(*e*), (*f*) Other	200	270	300	270	300	270	230	290
Total visible imports	1,940	2,000	2,260	1,990	2,170	2,020	1,800	2,000
Invisible imports[1]	510	420	440	460	460	490	480	420
Total payments[1]	2,450	2,420	2,700	2,450	2,630	2,510	2,280	2,420
Exports (*f.o.b.*) :								
Vehicles	290	360	370	340	370	380	290	310
Machinery	350	370	380	400	410	440	370	360
Other metal goods	210	250	240	210	220	240	180	210
Total metal products	850	980	990	950	1,000	1,050	850	890
Textiles and clothing	340	370	390	290	320	280	250	290
Other manufactures	310	380	460	430	460	450	400	400
Total manufactures	1,500	1,740	1,840	1,660	1,780	1,780	1,500	1,580
Other exports and re-exports ...	250	330	320	435	420	470	380	470
Total visible exports	1,750	2,060	2,160	2,085	2,200	2,250	1,880	1,050
Invisible exports[1]	560	710	690	655	590	640	700	700
Total receipts[1]	2,310	2,770	2,850	2,750	2,790	2,890	2,580	2,750

[1] Excluding profits, dividends and interest, and defence aid.

Achieving a surplus in our international payments and checking the loss of dollars should not, however, be considered reasons for complacency. The significant point about the fourth quarter is not that there was a recovery in exports, but that the recovery was small and seemed to peter out. The figures in Table I refer to shipments in the period September–November, and are therefore affected by the rather low September results, but the exports shipped in January and February were lower than those of October.[1] In judging recent results we must remember that conditions now are probably as favourable as can be expected—at least in the near future. American activity has continued to run at a high level and yet the terms of trade have returned to levels relatively favourable for us.

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[1] This can more usefully be shown as $200m. on other transactions, less $170m. on arbitrage business (which was largely responsible for the E.P.U. surplus).

[2] In terms of the items of Cmd. 8666, Table 8 : If items 31 and VI are not offset by item 44, items 32 to 39 must in sum be negative.

[3] *I.e.* unless item 36 were considerable, item 38 is probably negative, since the other items are of relatively minor importance.

The future prospects for exports are very difficult to assess. They depend largely on American developments. A large-scale renewal of American buying would simultaneously turn the terms of trade against us and raise the incomes of our customers, stimulating once more the demand for our engineering products, at least. An American recession would ease our terms of trade still further, but sharply reduce the volume of our sales. On the whole, the latter alternative seems to hold the greater danger. Other things being equal, however, there may be a small increase in exports to the Commonwealth as import restrictions are relaxed, especially since Commonwealth development will facilitate an increase of our exports (both of consumer and capital goods) in the sheltered markets of developing areas. But it will hardly be possible to continue holding imports down to recent levels, unless of course activity falls off again. The outlook for the balance of payments is therefore not encouraging.[2]

Our surplus with E.P.U. is now only partially settled in gold, and will probably in any case decline. Since in addition American stockpiling is nearing the ' targets ' laid down, the gold reserve can be expected to rise more gradually in the future.[3]

3. *Consumption*

Consumption was well-maintained in 1952, considering the recession, but the upward tendency in the demand for durables did not become pronounced (or lead to higher orders to manufacturers) until the autumn.

For the year as a whole, real consumption seems (from Table IV) to have been astonishingly near 1951 levels,[4] not only for the total, but for each item, the only major exception being household goods. Since these levels were in turn close to those of 1950, we can say that consumption has been approximately constant for over two years. Moreover, the declines that have occurred have been mainly in ' consumers investment ', *i.e.* goods such as furniture which are 'consumed' over several years, and such declines therefore do not cause a great feeling of impoverishment in the short run.

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[1] A minor point is that a new method of valuing parcel post raised the January export figures by about £3m.

[2] One question of some topical interest is: What can be concluded about the balance of payments from the deficit shown in the trade returns ? Allowing for interest payments on the American loan, and mounting overseas commitments, we probably cannot expect an ' invisible ' surplus of more than £200m. per annum, if that. We therefore need to keep the deficit in visible trade to £15m. a month on an f.o.b. basis. In order to judge the current position from the trade returns, we must bear in mind that there are differences in coverage and valuation (as well as in period) : however the deficit shown by comparing c.i.f. imports with f.o.b. exports would probably yield a deficit in the balance of payments (excluding defence aid) if it averaged more than £55m. for long.

[3] We would get a different, and possibly more useful, picture from the monthly statement on the gold reserves, if we subtracted $15m. a month from the receipts to cover the liability for servicing U.S. loans at the end of the year.

[4] Smoothing out the abnormally high figures for the first quarter of 1951 in the annual average.

TABLE III

Personal Consumption at Current Prices
(£ millions)

		1949	*1950*	*1951*	*1952 Estimated*
1.	Food	2,417	2,627	2,867	3,260
2.	Beer	502	497	530	565
3.	Other drink	222	237	258	250
4.	Tobacco	754	767	801	815
5.	Rent and rates	659	677	701	730
6.	Fuel and light	345	370	414	460
7.	Household goods	596	675	741	705
8.	Footwear	170	174	185	175
9.	Clothing	782	831	861	835
10.	Travel	348	345	365	390
11.	Entertainments	174	175	181	185
12.	Other goods and services	1,779	1,815	1,976	2,045
	Total	8,748	9,190	9,880	10,400

TABLE IV

Personal Consumption at 1948 Prices
(£ millions)

		1949	*1950*	*1951*	*1952 Estimated*
1.	Food	2,324	2,376	2,364	2,380
2.	Beer	501	497	495	485
3.	Other drink	220	238	256	245
4.	Tobacco	741	746	769	775
5.	Rent and rates	656	666	676	690
6.	Fuel and light	339	356	368	365
7.	Household goods	587	646	615	570
8.	Footwear	175	179	155	150
9.	Clothing	734	766	702	690
10.	Travel	348	341	348	345
11.	Entertainment	174	175	176	170
12.	Other goods and services	1,722	1,698	1,727	1,730
	Total	8,521	8,684	8,651	8,600

The information available on fourth quarter consumption is at present too fragmentary to enable itemised estimates to be made. The official index numbers of retail sales suggest, however, fairly buoyant business in the fourth quarter, and particularly in December (discounting of course the usual seasonal rise). Sales of clothing were generally well above 1951 levels, and, since prices were lower, the volume of sales must have been substantially higher. The fourth quarter also saw noticeable spurts in sales of household durables : this covered all groups, hardware, furniture, floor coverings and (most noticeably) electrical goods. It may have been partly due to a belief that prices would not fall much further, and to the rise of incomes in industries recovering from the recession, but it probably is mainly attributable to the desire by consumers to replenish their own stocks of clothes and durables, which had been declining after the ‘ buying boom ’.

There is at present little reason to believe that the propensity to consume will continue to vary. The public will scarcely expect large price changes in durables (except for vehicles) and the only predictable influence is that the Coronation will give a special stimulis to purchases of many lines.[1] Changes in consumption appear likely to be on the whole an ‘ effect ’ rather than a ‘ cause ’ of other changes : they will depend mainly on world trade and on the Budget.

4. *Investment and Government expenditure*

It can be presumed from the White Paper on Defence that current expenditure by the public authorities increased between 1951–2 and 1952–3 by about the £150m. anticipated in the *Economic Survey*—possibly a little more if the economies in ‘ real ’ civil expenditure have not been fully achieved. Working in calendar years and at 1948 prices, however, the increases would not be far from £150m. The general picture of economic changes was therefore something like this :

Changes between 1951 and 1952 (£m. at 1948 prices) :

Production	—200	Exports	—100
Imports	—250	Consumption	—50
		Public authority spending	+150
		Investment	(—450)
Resources Available	—450	Resources Used	—450

Our estimates show a sharp fall in the rate of investment. But fixed investment may well have been above 1951 levels, but in any case the greater part of the change in investment, as we have previously indicated, must have been due to a fall in investment in stocks. Stockbuilding could fall without necessarily becoming negative : it had been heavily positive in 1951, and merely to eliminate the increase in stocks would have caused a large fall in the rate of investment. However, the residual figure for investment seems to have fallen by more than enough to wipe out the 1951 stockbuilding ; the indications are that there was some decline in stocks—goods-in-shipment, retail stocks and work-in-progress falling by enough to outweigh increases in raw material stocks.

Early in 1952, there were apparently further increases in stocks, but the economy seems to have lost stocks heavily in the second and third quarters, particularly in the later stages of production (distributors’ stocks, work-in-progress, etc.) and stocks of goods-in-shipment. At the end of the year, imports and production both rose, and this rise in resources available seems to have more than covered the increases in exports and consumption, so that the rate of drawing on stocks may have declined. But there seems nonetheless to have been a definite reduction in stocks for the year as a whole. This large change in the rate of investment in stocks explains why imports and production could fall, even though the total resources used in consumption, exports, defence and fixed investment did not change appreciably.

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[1] This may not be fully reflected in the production index, since it will consist partly of new lines, or small-scale trinket production for which there are no indicators. The exclusion will anyway not be complete, because the output of most of the semi-manufactures concerned will be reflected in the index.

TABLE V

Gross Domestic Expenditure at 1948 Prices, Seasonally Corrected
(£ millions at annual rates)

	1950 Year	*1951 Year*	*1952 Year*	*1952* I	*1952* II	*1952* III	*1952* IV
Gross Domestic Product at factor cost	10,960	11,210	11,020	11,220	10,940	10,815	11,090
Net Indirect Taxes at 1948 rates	1,460	1,500	1,480	1,495	1,440	1,455	1,510
Gross Domestic Product at market prices	12,420	12,710	12,500	12,715	12,380	12,270	12,600
Statistical discrepancy	(—85)	(+50)	(+ 0)	(+50)	(+50)	(+50)	(+50)
Gross Domestic Expenditure ...	12,335	12,760	12,550	12,765	12,430	12,320	12,650
Consumption	8,685	8,650	8,600	8,575	8,515	8,570	8,750[1]
Exports	2,770	2,850	2,750	2,780	2,940	2,610	2,700
—Imports	—2,420	—2,700	—2,450	—2,720	—2,410	—2,260	—2,460
Government Expenditure ...	1,915	2,060	(3,650)	(4,130)	(3,385)	(3,400)	(3,660)
Gross Domestic Capital Formatn.							
(*a*) Fixed	1,575	1,540					
(*b*) Stocks	—190	360					
Gross Domestic Expenditure ...	12,335	12,750	12,550	12,765	12,430	12,320	12,650

[1] Very provisional.

The Defence White Paper envisages an increase in military expenditure which will be small in real terms, and, if there are further economies in civil expenditure, the resources used by the public authorities may change little, possibly fall slightly. Since spare capacity is appearing in the heavy industries, however, and the housebuilding programme has grown heavier, some increase in fixed investment might be expected—provided that sufficient finance is available to industry, and that markets remain firm. Changes in the rate of stockbuilding will depend on price movements and on the delay before changes in demand cause changes in output: little can therefore be said about the prospects for this sort of investment, but any increase in production would tend to induce an eventual increase in stocks of materials and work-in-progress.

5. *Production*

The changes in real gross domestic product during 1952 are shown in Table VI. After a period of almost complete stability in 1951, the product fell sharply in the first two quarters of last year, and reached its lowest point during the third quarter. In the fourth quarter there was some recovery, but the product was still well below the levels achieved in 1951 and at the end of 1950.

Judged in relation to the hopes expressed in the *Economic Survey*, 1952 was a disappointing year. It was hoped that the product would be about £250 million (at 1951–2 prices) higher in the financial year 1952–3 than it was in 1951–2. In fact, the real gross domestic product in the calendar year 1952 was about £200 million (at 1948 prices) lower than in 1951, and the decline would be greater if measured in the higher 1951–2 prices. The comparison between the financial years 1952–3 and 1951–2 will be more favourable only if (as seems unlikely) the product in the first quarter of this year is higher than that of the first quarter of 1952. The decline in output was more severe than was anticipated when the *Survey* was written, and the subsequent recovery has been both slower and smaller than was hoped. For certain ' key ' industries, however, the outcome was much less unfavourable. The output of both coal and steel was higher in 1952 than in 1951, and these persistent supply bottle-becks became less serious.[1] It is true that shortages of particular materials (*e.g.* steel plates in shipbuilding) and labour (*e.g.* in the production of jet aircraft) continued to inhibit increases in the output of certain industries, but it seems unlikely that supply difficulties became *more* acute in 1952, so that they cannot be invoked as an explanation of any *decline* in output. The reason was rather a falling off in demand which was, for some industries, aggravated by the need to liquidate large stocks of finished goods.

TABLE VI

Gross domestic product at 1948 factor cost, seasonally corrected
(£ millions at annual rates)

Sector	*1950*	*1951*	*1952*	*1952*			
				I	*II*	*III*	*IV*
1. Mining and quarrying ...	400	415	415	415	415	415	415
2. Manufacturing	4,365	4,545	4,355	4,520	4,315	4,160	4,385
3. Building and contracting ...	670	645	660	670	640	665	670
4. Gas, electricity and water...	230	245	250	245	240	255	260
5. Agriculture, forestry and fishing	620	630	5,340	5,370	5,330	5,320	5,360
6. Transport and communications	900	925					
7. Distributive trades ...	1,365	1,350					
8. Public administration and defence	675	715					
9. Other services	1,735	1,735					
10. Gross national product ...	10,960	11,210	11,020	11,220	10,940	10,815	11,090

Since a fall in output was not accompanied by a corresponding decline in employment it was associated with a fall in production per man-year. We may draw some comfort from the fact that the fall in output per man-hour was not so marked ; but the decline in productivity shows that the failure to make full use of the labour force was far greater than would be inferred from the unemployment figures.

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[1] Stocks of pig iron, scrap and steel declined throughout 1951, and reached their lowest levels in the first two quarters of 1952. Since then, there has been an increase in these stocks.

There must also have been a sharp rise in internal costs per unit of output during 1952. Internal unit costs rise if factor remuneration increases faster than output; and unit wage costs, an important element in internal costs, rise if earnings increase more rapidly than output. Some data on changes in internal costs, and wage costs, per unit of output are shown in Table VII. Over the period 1948–50, internal costs per unit of total industrial output, were relatively stable, reflecting a stability in overall wage costs. They tended to fall in industries where the productivity increases were greatest (*e.g.* in engineering and vehicles), and rise where increases in productivity were smallest (*e.g.* building and contracting). On the whole, increases in output offset such increases in factor remuneration as did occur over the period when the policy of wage-restraint was successful. In 1951, however, the modest increase in output over 1950 levels was quite insufficient to offset the accelerated rise in factor remuneration, and, particularly, the large increase in industrial wage bills. There was, therefore, a substantial rise in internal unit costs and in unit wage costs.

TABLE VII

Indices of factor cost in industry, 1948=100

(*i*) *Internal cost per unit of output*[1]

Industry	*1949*	*1950*	*1951*
All industries	100½	102	113
Mining and quarrying	102	103½	108
Manufacturing	99½	101½	112
Gas, electricity and water	102½	103	107
Building and contracting	101	106	120

(*ii*) *Wage cost per unit of output*[2]

Industry	*1949*	*1950*	*1951*
All industries	99½	99	108
Mining and quarrying	99	99	107
Manufacturing	99½	99	106½
Gas, electricity and water	101½	103½	109
Building and contracting	98½	104	119
Manufacturing	99½	99	106½
Metals, engineering and vehicles	98½	98½	102½
Textiles and clothing	101½	104	116
Food, drink and tobacco	105	108½	124½
Other manufacturing	98	96	102½

[1] Derived from a comparison of changes in value added shown in Table 9 of the Blue Book with changes in the corresponding volume of output shown in the Index of Industrial Production. Since the data for individual industries in Table 9 include stock appreciation, 'internal costs' will also reflect changes in stock appreciation.

[2] Derived from a comparison of changes in industrial wage-bills (Blue Book, Table 12) with corresponding changes in industrial outputs.

During 1952 the national wage bill continued to increase rapidly. Increases in wage rates more than offset a slight decrease in employment and a decrease in hours worked. In some industries there was a weakening in the tone of wage demands during 1952, but the wage-rate index continued to reflect increases which had been under negotiation for some time. Consequently the wage-bill rose, and, as there was a fall in output, there must have been, in many industries, a further sharp rise in unit wage costs.[1] Despite some reductions in profit margins, there was therefore almost certainly another increase in total internal costs per unit of output with further damage to our competitive position.[2]

We have stressed that variations in the gross domestic production can be attributed, in large measure, to changes in output within manufacturing industry. In 1952, the output of manufacturing industries, taken as a whole, was about equal to their 1950 output. Table VI shows the broad pattern of changes during 1952. Manufacturing output declined from a relatively high level in the first quarter, reaching its lowest point during the third quarter. The recovery in the fourth quarter was slight, and at the end of the year output was running at about the mid-1950 level. Some further details of the output of manufacturing industries are shown in Table VIII.[3] The total output of these industries in 1952 was 4–5 per cent lower than in 1951,[4] and the decline in output was concentrated in the textile and clothing industries (17 per cent lower) and in ' other manufacturing ' industries (10

TABLE VIII

The product of manufacturing industries at 1948 factor costs (£ millions)

Industry	*1950*	*1951*	*1952 (Estimated)*
1. Metals, engineering and vehicles	2,050	2,190	2,190
i. Metal manufacture	325	345	355
ii. Engineering, ship-building and electrical goods	945	1,035	1,040
iii. Vehicles	490	500	495
iv. Other metal trades	290	310	300
2. Textiles and clothing	675	665	570
3. Food, drink and tobacco	530	520	535
4. Other manufacturing	1,110	1,170	1,060
5. Total manufacturing	4,365	4,545	4,355

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[1] A cumbersome and time-consuming machinery for wage-negotiation (for good or ill) delays increases in costs and prices and so moderates the speed at which wages and prices spiral upwards. In fact, the longer the delay, the greater the possibility that productivity increases will offset the effect of higher wage-rates on *unit* wage costs and so make price increases to cover higher wage costs unnecessary. But unless weekly earnings actually decline, unit wage costs must of course rise in a period of falling productivity.

[2] This rapid increase in internal costs would explain the apparent loss of some of the competitive advantage gained by devaluing sterling.

[3] Details of the output of individual industries in the fourth quarter are incomplete, and we have had to guess at their output in the last months. Changes in manufacturing output as a whole, for which details have been published up to the end of the year, impose a constraint on our guesses : and it is in any case unlikely that errors in our guesses will greatly distort the annual totals.

[4] As was pointed out in the last article, indices of output in particular industries may be biassed downwards because of inadequate coverage of new products.

per cent lower). The latest available data suggest that textile and clothing output has recovered rapidly from the very low levels of early summer. But 'other manufacturing' output continues to decline: the fall in the output of the paper and printing industries during 1952 was particularly marked. Even the metal, engineering and vehicle industries failed to increase their output. Production was high in the first quarter, fell away during the spring and summer, and there was an unspectacular recovery in the autumn. Although the latest available indexes for the output of individual industries are by now very much out of date, the provisional index for the December output of manufacturing industry as a whole indicates that there was, on balance, no further recovery by the end of the year.[1]

How much of the decline in demand in 1952 can be attributed to a weakening in export demand? Our estimates show that the value added in manufacturing industries (other than food, drink and tobacco industries) at 1948 factor cost declined by about £200 million, and that the value of manufacturing exports at 1948 prices also fell by about £150 million. These two figures cannot be compared directly: we have to compare changes in the *gross* value of the output of manufacturing industry at 1948 factor cost with changes in manufacturing exports at 1948 prices.[2] Fortunately, since we are working in 1948 prices, we can use the input-output table in the National Income Blue Book[3] to get some idea of the fall in the *gross* value of output of manufacturing industries[4] at 1948 factor cost. It seems that this will have been of the order of £300 million, which can be compared with the fall of £150 million in the value of manufacturing exports.[5]

There are, of course, many other factors which may affect output. The textile and clothing industries, for example, were faced with a decline in home demand as well as a severe fall in export demand. And since the production of the metal industries for re-armament and home investment, taken together, must have increased, these industries were able to maintain their output despite a (relatively small) fall in export volume. But, turning to the future, an increase in export volume would be required to stimulate a renewed and substantial increase in manufacturing output.

Measures could also be taken which would increase the proportion of output absorbed in home markets. The Chancellor is being pressed to take fiscal measures to enable increasingly frustrated exports to be sold in the home market. Given a short-run immobility of productive factors, home sales may, for some products, be an alternative to no sales. But such measures could be no more than a temporary stopgap in an economy dependent on imports for a substantial proportion of its food and raw materials. It is only by increasing exports that external solvency can be reconciled with a high level of output and employment at home.

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[1] The very tentative index for industrial output in January, however, suggests a much higher rate of manufacturing output, which probably reflects a restocking after heavy Christmas sales together with the improvement in export shipments. The higher figures for unemployment in this month were mainly attributable to iron and steel trades, and were to some extent due to the closure of hand mills in South Wales, and to a lower level of activity in iron foundries, because of some uncertainty about future demand.

[2] Net indirect taxes on exports are small enough to be ignored in this comparison.

[3] Table 13. Changes in the ratio of input to output due to price changes can be ignored since we are working in 1948 prices throughout, and changes in the ratio due to less (or more) physical input being required for a unit of physical output would be of minor importance in the short period.

[4] Again excluding the food, drink and tobacco industries.

[5] But even now the comparison is not strictly legitimate, since there is a considerable time-lag between production at home (to which the output figures refer) and the arrival of exports abroad (to which the export figures refer). The discrepancies of timing are, however, unlikely to affect comparisons of annual totals very much.

The expansion of exports must be the most important policy objective in 1953. Some increases in exports may occur within the framework of present policies. The reduction of rearmament claims on the metal-using industries may release goods for the export market, and the relaxation of import restrictions abroad will enable us to increase our exports. But the weakness of the demand for our goods in increasingly competitive foreign markets is a worrying feature of recent developments. Of our major exports, textiles were hit first and hardest, and light engineering products are meeting increasing resistance. It will not be very long before heavy engineering goods have a hard struggle for foreign markets. Furthermore, continued increases in our internal costs must reduce our power to sell abroad.

But merely to say that an expansion of exports must have highest priority does not solve any problem. The Chancellor will no doubt be considering whether a policy of exhortation provides a sufficient inducement to export, and whether steps such as differential profits taxation[1] ought not to be taken to drive home the fact that in present circumstances goods exported are more valuable to the community as a whole than are goods sold at home.

6. *The problems of central economic policy*

What are the policy considerations which will be, or may be, amongst those the Chancellor takes into account in drafting the Budget? And what do they imply?

It would surely be reasonable to use as a working assumption the continuation of the high current level of American prosperity. This does not in any way mean that its continuation is probable. But, if the boom breaks, drastic adjustments to our foreign economic policy will be necessary, and fiscal policy will have to be designed to support these adjustments. The Budget will therefore presumably be intended to operate only for so long as there is no American recession. This assumption carries with it the corollary that the terms of trade will not be very different from those at the end of 1952, or at least that it would be unwise to count on much further improvement.

The second assumption to be made is one about the size of the export surplus which can be envisaged. This in turn depends to some extent on whether special measures, such as those mentioned above, are taken to stimulate exports. However, even if such measures were adopted at once it would take some time for them to take effect. The short-term outlook is nto particularly encouraging : exports to the Commonwealth may be expected to rise slightly, but the value of imports may well have to rise, if we are to sustain a high level of consumption and production. It would seem optimistic to anticipate any substantial export surplus in 1953–4 in the calculations made in deciding the shape of the Budget.[1]

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[1] Relaxing the restrictions on export credits, or allowing exporters to keep part of their foreign exchange earnings would be other possibilities with the same sort of effect.

We have also suggested above that public authority spending in real terms may decline slightly, but that investment may increase : in fact it certainly ought to be increased in order to equip us more effectively for future struggles in the world market. Increases in investment and exports can to some extent be met out of the increase in ' heavy ' production that the expanding supply of steel will make possible, especially since the arms progamme has been adjusted so as to lessen the demands on metal-using industries. An increase in output would however itself generate more purchasing power, and since prices have levelled off (and wage rises are still taking effect), there may be some tendency for real consumption to rise. There is now sufficient spare capacity in the light consumer goods industries to permit some increase in consumption without an appreciable cut in exports.[2]

More drastic programmes of capital investment and export stimulation would leave less for home consumers. But such programmes have not been adopted, and, even if they were adopted now, they would not affect consumers greatly for some months. Our analysis suggests that there is a reasonable case for a Budget that makes little difference to the public's purchasing power, tax increases (or subsidy reductions) being balanced by tax concessions, provided such adjustments at least do not discourage exports or encourage imports. There is no overwhelming argument in favour of restricting consumption when this merely leaves resources idle. Given existing economic policies, therefore, anyone in the Chancellor's position might conclude that a ' tough ' Budget was not necessary. But the sooner that we turn to the real task of modernising the country's industries for a renewed export drive, and face all the implications—budgetary and otherwise—of such a programme, the better.

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[1] In terms of the technique of programming, now that exports are determined by demand rather than supply, the projected export surplus has to be considered a ' forecast ' rather than a ' target ', unless radical changes are made in foreign economic policy.

[2] Though this would induce a rise in the imports of raw materials, and thus necessitate larger exports.

D. G. HOLLAND

DUDLEY SEERS

RECENT PRODUCTIVITY CHANGES IN THE BRITISH COTTON INDUSTRY

Measuring productivity by relating output to labour employed is rarely satisfactory, for several reasons. Firstly, the time labour is on the job should be introduced as in calculations of output per man-hour, per man-shift, or operative-hours per unit of production. These ratios, however, still leave much to be desired. Labour is only one of several inputs and a misleading impression can be created by comparisons of, for example, OMH, if other inputs are not held constant throughout. Output is related to all inputs not simply to an arbitrary choice of one only. Furthermore the product is rarely homogeneous either as between factories or over time. This has to be taken into account. Finally, the productive process must be broken down to the maximum consistent with measurability of output and the various inputs. Within any single process allowance should be made for variation in any important technical factors. For instance, different rolling rates would have an appreciable effect on output in a steel rolling mill.

When all significant variables affecting output have been included a residual time-trend will indicate the rate of change of productivity in a meaningful way. Productivity changes in this sense mean the variations in output of a homogeneous product from one period to another, all inputs and technical factors being held constant. It may be, of course, that certain influences cannot be included individually because they are not measurable and in that event the productivity change measured by the residual time trend will incorporate these effects. Indeed, the time variable will absorb all factors other than those specifically included.

In this paper an attempt is made to analyse the important influences affecting output in recent years for cotton spinning and in cotton weaving for the United Kingdom.

Cotton Spinning

The numbers actually working, the spindles running, the hours of production, the count of yarn produced, will be the important measurable factors influencing cotton yarn output. The first difficulty is the absence of a reliable basis for allocating all these variables between cotton, rayon, and mixtures. Aggregation here, though, is not a serious detriment since cotton is of such relatively predominant importance. It would have been desirable, too, although regrettably impossible in this case, to break labour down into separate categories ; spinners, doffers, winders, etc. From the viewpoint of data availability, it is convenient to combine hours of production and spindles running into a single variable, spindle-hours. We have, then, taking the longest period for which comparable data exists, which unfortunately terminates before the 1952 recession, the following Table ;

Year and Quarter	*Total Yarn Production Weekly averages million lbs.*	*Average count of yarn produced*	*Average numbers actually working Thousands*	*M.E. Spindle-hours Weekly averages millions*
1948 III	15.78	27.1	94.92	1046.7
IV	17.01	27.3	104.32	1131.1
1949 I	17.17	27.3	103.64	1151.1
II	16.48	27.3	102.51	1098.5
III	16.63	27.4	99.95	1105.0
IV	17.91	27.2	107.57	1177.7
1950 I	18.49	26.9	107.72	1195.8
II	17.71	26.8	107.51	1143.3
III	17.54	26.1	102.01	1102.9
IV	18.83	26.3	110.70	1199.6
1951 I	18.25	26.3	109.75	1163.6
II	18.96	26.5	111.16	1209.9
III	18.08	26.0	105.09	1137.5
IV	19.13	26.4	112.65	1228.5
1952 I	16.41	26.3	103.80	1057.0

When all these variables are included in the same analysis it is found that the parameter associated with numbers working is quite insignificant. The reason is not far to seek. The process of cotton spinning is one in which the labour capital ratio is very inflexible, a case of constant factor proportions. It has, in fact, been checked that spindles running per operative working varied inappreciably during the period analysed. Any statistical analysis is thus unlikely to be able to distinguish between the effect of labour and capital on cotton yarn output. It seems desirable then to omit numbers working. The goodness of fit of the function adopted is found to be unaffected. A relationship linear in the logarithms of the variables appears to be the most satisfactory. The residual trend can then conveniently be included as an exponential function of the time. This implies constant proportional change in production per quarter due to all factors not specifically included. Actually, however, the exponent of the residual time variable is also found to be negligible, corresponding to a decrease in productivity of only 0.1 per cent per quarter. This variable, too, then, should be left out, again with no effect on goodness of fit.

We are left with the result :

Output of yarn $\propto$ (average count)$^{-1.09}$ (Spindle-hours)$^{1.06}$ The multiple correlation coefficient is 0.995 indicating a very close fit. It is concluded that

(*a*) Increase of count by x per cent decreased output by $1.09x$ per cent.

(*b*) Increase of spindle-hours by x per cent increased output by $1.06x$ per cent.

(*c*) If change in productivity is defined as change in output for constant inputs and count, there was no appreciable productivity change in cotton spinning between 1948 and 1952.

Cotton Weaving

Here the variables will be output of cloth, numbers working, looms running, hours of production, and cloth weight. The last is the only available measurable indicator of differences in types of cloth woven. Again, rayon and mixtures have to be included with cotton, quarterly labour figures cannot be broken down, and it is convenient to represent looms and hours by the single variable loom-hours. The data are :

Year and Quarter	*Total cloth production Weekly averages mn. linear yds.*	*Average cloth weight lbs. per yard*	*Average numbers actually working Thousands*	*Loom-hours per week Thousands*
1948 III	43.44	0.3336	114.17	11,487
IV	48.79	0.3267	128.75	12,983
1949 I	49.90	0.3249	128.98	13,438
II	49.77	0.3215	130.69	13,052
III	46.69	0.3268	123.23	12,443
IV	52.90	0.3255	136.29	13,891
1950 I	54.65	0.3285	137.28	14,366
II	54.59	0.3244	139.27	14,107
III	51.16	0.3276	129.04	13,169
IV	57.42	0.3251	142.74	14,775
1951 I	55.59	0.3263	140.99	14,474
II	59.67	0.3246	145.45	15,279
III	53.77	0.3297	132.96	13,682
IV	58.67	0.3244	141.87	14,856
1952 I	54.56	0.3156	136.70	13,805

It is then found that

$$\begin{pmatrix}\text{Cloth}\\ \text{output}\end{pmatrix} \propto \begin{pmatrix}\text{Numbers}\\ \text{working}\end{pmatrix}^{0\cdot33} \begin{pmatrix}\text{Cloth}\\ \text{weight}\end{pmatrix}^{0\cdot26} \begin{pmatrix}\text{Loom}\\ \text{hours}\end{pmatrix}^{0\cdot70} e^{0045t}$$

where t is the time in quarters. The multiple correlation coefficient at 0.999 is even greater than for spinning, although of course, there are two additional degrees of freedom in the weaving case. The conclusions are :

(*a*) Increase of x per cent in average cloth weight increases output by 0.26 x per cent.

(*b*) Increase of x per cent in numbers working increases output by 0.33 x per cent.

(*c*) Increase of x per cent in loom-hours is associated with output increase of 0.70 x per cent.

(*d*) For constant inputs and cloth weight, production increased from 1948 to 1952 at a cumulative rate of 0.45 per cent per quarter. Productivity in cotton weaving in this sense, then, increased during the period at a rate of 1.81 per cent per annum.

Conclusions

It has been seen that, allowing for changes in all inputs and technical factors, there has been, over the period 1948 (III) to 1952 (I), inappreciable productivity change in cotton spinning but a productivity increase in cotton weaving amounting to 1.8 per cent per annum. This is not an unexpected result. It is well known that there is far less scope for redeployment in spinning than in weaving ; less possibility of making changes so that given inputs are used more efficiently to produce greater output. It is undoubtedly true that progress has been made in weaving but it seems doubtful whether much has been possible in spinning. The shift from mule spindles to rings, which has been a feature of recent years in the spinning section of the cotton industry has already been taken account of in that the capital variable included has been constructed in terms of mule equivalent (ME) spindles. With regard to the weaving section, in so far as the more looms per weaver system has resulted in greater output from a smaller labour force this will be one of the factors contributing to the productivity change in weaving. In fact, however, the figures seem to suggest that in this system the ancillary workers have to be increased to such an extent that the number of looms per operative of all kinds remains sensibly constant. While even so costs would be reduced, to the extent to which this is true the more looms per weaver system does not contribute to the productivity change. It is indeed regrettable that more light cannot be thrown on this problem by breaking down the quarterly labour figures.

Reasonable as the above results appear, more important is the method. The aim has been to stress the desirability of measuring productivity change in a meaningful way. Output per operative means very little if changes have been taking place in other inputs, in product, or in process. It is desirable to restrict the term productivity change to a change in output for constant inputs, product characteristics and technical process factors.

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